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RESULTS
OF
ASTRONOMICAL OBSERVATIONS,
CAPE OF GOOD HOPE.

1874.

**ASHMOLEAN
NATURAL HISTORY SOCIETY**



OF OXFORDSHIRE.

Per 1843 d. 51





RESULTS
OF
ASTRONOMICAL OBSERVATIONS

MADE AT THE

ROYAL OBSERVATORY.

CAPE OF GOOD HOPE,

DURING THE

YEAR 1874,

UNDER THE DIRECTION OF

EDWARD JAMES STONE, M.A. CAMB., F.R.S., F.R.A.S.,

C. M. DE LA SOCIÉTÉ NATIONALE DES SCIENCES NATURELLES DE CHERBOURG.

HONORARY FELLOW OF QUEEN'S COLLEGE, CAMBRIDGE,

AND

HER MAJESTY'S ASTRONOMER AT THE CAPE OF GOOD HOPE.

PUBLISHED BY ORDER OF THE BOARD OF ADMIRALTY IN OBEDIENCE TO HER MAJESTY'S COMMAND.

CAPE TOWN:

SAUL SOLOMON & Co., 49 & 50, ST. GEORGE'S-STREET.

1877.

CAPE TOWN :
SAUL SOLOMON AND CO., PRINTERS,
. 49 AND 50, ST. GEORGE'S-STREET.

ERRATA AND NOTES.

Owing to the printing of the Results for 1872 and 1873 in England and the impossibility of referring either to the observations or calculations, it was feared that a few errors might have been passed in the press. The whole of the Catalogued Results as printed have therefore since my return been re-read with the original observations in the books of reductions. This reading and a systematic examination of the results which has been made in preparation for a final Catalogue have led to the detection of the few errors given below.

CAPE OBSERVATIONS, 1871.

- pp. 11 and 38. σ Ophiuchi. For 6^m39 read 6^m96. Four of the observed wires were each 1^m too small.
 pp. 13 and 39. λ Octantis. For 48^m11 read 50^m60. The correction for Azimuth was applied with the wrong sign.
 p. 42. Brisbane 2379. The constants have been computed with R.A. 1^m too great and should be

- 9 ^m 1287	+ 9 ^m 1114	+ 9 ^m 8141	+ 9 ^m 0990	- 9 ^m 9043	- 9 ^m 8283	+ 1 ^m 1602	+ 9 ^m 8407
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The Catalogued N.P.D. requires in consequence to be diminished by 0^m09.

CAPE OBSERVATIONS, 1872.

- pp. 5 and 39. Lacaille 779 S.P. For 4^m42 read 5^m25. The instrumental corrections were applied with wrong signs.
 p. 39. No. 69. δ Eridani. For 57^m read 37^m. Printer's error.
 p. 40. No. 71. Precession in N.P.D. For - 13^m90 read - 11^m46. Printer's error.
 p. 49. No. 347. It appears that the second and fainter Star was observed.

CAPE OBSERVATIONS, 1873.

- Lacaille 4027. The constants b, c, a¹, and d¹ on p. 99 require small corrections and should be + 9^m6001, - 0^m6890, - 9^m8162, and + 9^m7880 respectively; hence the following errata—
 p. 18. The R.A.'s on Mar. 4, 5, and April 4 require to be increased by 0^m07, 0^m06, and diminished by 0^m05 respectively.
 p. 53. The N.P.D.'s on the same dates require to be increased by 0^m18, 0^m17, and 0^m18 respectively.
 p. 79. No. 314. For 33^m63 read 33^m66; for 5^m072 read 4^m886; and for 49^m19 read 49^m37.
 p. 86. No. 912. For B.A.C. 5626 read B.A.C. 5636.
 p. 87. For Lacaille 7539 read Lacaille 7529.
 p. 90. No. 642. Precession in R.A. For 2^m107 read 2^m401.
 p. 90. No. 648. " " " For 2^m158 read 2^m476.
 p. 91. Dele No. 679. No Star of the 7 mag. appears to exist in this place; and it would seem that the observer must have made some mistake in entering his observations.

CAPE OBSERVATIONS, 1874.

- p. 109. First Column. Lacaille 2551 S.P., Sept. 18. For 11^m53 read 10^m49.
 Second Column. * 7 mag. Insert S.P. and Sept. 18 for 15^m88 read 14^m84.
 These two Stars on Sept. 12 were observed at the same set, and each was a considerable distance out of the centre of the field. The observations are in consequence rather rough.

APPENDIX TO CAPE OBSERVATIONS, 1874.

- p. 3. Fourth Column. For 37^m. read 57^m.
 p. 6. Last Column. For 79^m. read 49^m.
 N.P.D. Table. Declination 58°. For c¹=0^m30220 read c¹=1^m30220.

The following is a list of the publications of the Cape Observatory since 1871:—

1871, Feb.	Results of Astronomical Observations, 1856.
1871, Mar.	Results of Meteorological Observations, 1841—1870.
1872, Feb.	Results of Astronomical Observations, 1857.
1872, Mar.	Results of Astronomical Observations, 1858.
1873, Oct.	First Cape Catalogue of 1159 Stars, from Observations, 1856—1861
1874, Feb.	Mean places of eight close-polar Stars from 1860 to 1900.
1874, Sept.	Results of Astronomical Observations, 1859.
1874, Dec.	Results of Astronomical Observations, 1860.
1875, Dec.	Results of Astronomical Observations, 1871.
" "	Results of Astronomical Observations, 1872.
" "	Results of Astronomical Observations, 1873.
1876, Dec.	Tables for facilitating the Computation of Star-corrections.
1877, Jan.	Results of Astronomical Observations, 1874.

E. L. S.



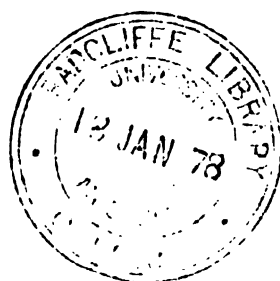
**ASHMOLEAN
NATURAL HISTORY SOCIETY**



OF OXFORDSHIRE.

Per 1843 d. 51





INTRODUCTION
TO THE
ASTRONOMICAL OBSERVATIONS,
MADE AT THE
ROYAL OBSERVATORY, CAPE OF GOOD HOPE,
IN THE
YEAR 1874.

THE personal staff of the Royal Observatory, Cape of Good Hope, during the year 1874, has consisted of Edward James Stone, M.A., F.R.S., Her Majesty's Astronomer; William Henry Finlay, B.A., First Assistant; George W. H. Maclear, Second Assistant; Calcott M. Stevens, Third Assistant; and Isaac Freeman, Fourth Assistant. There have usually been three computers and a carpenter attached to the staff. The time-ball and meteorological services have been carried on as usual; but the chief work of the year has been the continuation of the general re-observation of the stars in Lacaille's "*Cælum Australe Stelliferum*," which was commenced in 1871. The present volume should contain observations of all Lacaille's stars, which, at the present epoch, fall within the limits of 155° to 165° North Polar distance; but it contains also places of some stars, in the same zone, not generally much lower than the seventh magnitude of Lacaille's scale, which are not to be found in the "*Cælum Australe Stelliferum*." Each star has in general been observed three times in both elements.

It may be mentioned that Lacaille's stars within the limits 145° to 155° N.P.D. were observed in the year 1875, and that the reductions to mean places are now, in 1877, January, complete, and that the stars in the zone 135° to 145° N.P.D. have been observed in 1876.

The instrument used for the Meridian Observations has been the Transit-circle. This instrument was constructed upon Sir G. Airy's plans, by Messrs. Ransome and May, as engineers, and Mr. Simms, as optician. It is similar in construction and power to the Transit-circle of the Royal Observatory, Greenwich.

The only points of difference are,—the removal of the Setting-circle and the handles for moving the instrument from connexion with the graduated circle to the opposite side of the instrument, and the piercing of the central cube, to allow of the adjustment of the wires of the collimating telescopes upon each other without the necessity of raising the Transit-circle.

A most careful and elaborate description, with plans, of the Greenwich instrument is given in the volumes of Greenwich Observations, 1852 and 1867. This appears to render any detailed account of the Cape instrument unnecessary.

TRANSIT OBSERVATIONS.

The Transit-clock made use of during the year 1874 has been the clock by William Hardy.

The form of the pivots was examined in 1872, January 4. The errors were found to be insensible.

The collimation errors have been determined by Gauss' method. The apertures of the collimating telescopes are four inches. The changes in the collimation of the instrument are exceedingly small, unless the instrument has been subjected to some accidental strain. The correction for diurnal aberration is included in the "collimation correction."

The level errors have been determined by the use of a Bohnenberger's reflecting eye-piece. The time at which the level error was determined, on any day, can generally be inferred from the time at which the Nadir-point reading was determined by the same observer on the same day.

I have had numerous determinations of the level and Nadir-point corrections made at different hours of the day, to test the stability of the instrument over short periods of time. The stability over short periods appears satisfactory, but the annual fluctuations are large. The annual range of the level-factors being about ± 0.6 , and the range in the Nadir-point corrections correspondingly large, being about $\pm 10''$. When the Transit-circle was first mounted in 1855, and for some years afterwards, the annual fluctuations, although well marked, were smaller; but since 1864 they have been nearly as large as at present. I am unable to account for the change which appears to have taken place about the year 1864 in the stability of the instrument.

The azimuthal errors used in the reductions of the year will be found in Table II., and the details of the determinations in Table III. of the year. When the azimuthal errors adopted depend upon the absolute right ascensions of polar stars, the right ascensions are either derived from "The mean places of eight close Southern Polar stars, 1860 to 1900," published by me in 1874, February 28, or from the observations made in 1871.

The "meridian mark" referred to in Table III. is on an undulation immediately to the east of the mountain called Blaauw Berg, and is situated about 13 miles north of the Observatory. It is a pillar built to serve as a permanent meridian mark for the 10 feet Dollond's Transit.

The Transit instrument is about 52 feet west of the meridian of the Transit-circle. The azimuth of the mark, from the meridian of the Transit-circle, assumed in the determination of the azimuthal errors given in Table III. has been $2^{\circ} 40'$ west. It would appear that the assumed azimuth is too great by about $1^{\circ} 3$, and that the true azimuth of the mark is nearly $2^{\circ} 38' 7''$ west. The azimuthal errors, derived from the position of the mark, have not been used in the reductions, except for the approximate determinations of the clock-error for time-ball purposes. The mark can only be well seen near noon on rather cloudy days; on bright, clear days it can only be observed soon after sunrise and near the time of sunset. The value of the mark, as an indication of changes in the position of the Transit-circle, is not so great as it would be were observations possible at any hour of the day.

The following are the dates at which level-errors of the instrument have been changed by the insertion of thin plates of tin-foil under the bearing-plate of the western pivot:—

1856, July 27.—3 thicknesses inserted.

Level-error factor before— $1^{\circ} 355$

After + $0^{\circ} 153$

1860, August 21.—3 more thicknesses inserted.

Level-error factor before— $0^{\circ} 946$

After + $0^{\circ} 431$

1872, February 26.—The 6 thicknesses of tin-foil were removed, and 29 much thinner sheets inserted in their place. The bearings were found clean and bright, and the tin-foil removed was apparently uninjured.

Level-error factor before— $1^{\circ} 935$

After + $0^{\circ} 445$

The relative subsidence of the western pivot over the eastern pivot, from 1856 to 1872, has been nearly $4''$ a year. This would be equivalent to a relative depression of about $\frac{1}{1000}$ of an inch per year.

In the adjustment for 1872, the error was purposely over-corrected under the expectation that the regular secular change would proceed as before. This does not appear to be now the case, and the result is that the level-error is large from over-correction.

The values of the intervals of the Transit-circle wires have been deduced from observations of stars.

The wires of the Transit-circle were found broken in 1873, May 30. I inserted a new system of wires, but these were broken almost immediately by one of the assistants pushing in too far the eye-piece of the Transit-circle. A new system of wires was again inserted, and a recurrence of a similar accident prevented by a thin ring of metal placed around the eye-piece. I availed myself of the opportunity to release the wire-frame from some indications of constraint to which it appeared to have been subjected. The lenses of the object-glass were separated, cleaned, and carefully re-centered. The definition of the glass appeared

improved by the re-centering. Attention will be called in the "Circle section" to some changes which appear to have followed these re-adjustments.

Independently of the night observations the error of the Transit-clock has been usually determined on each day by observations of stars (or of the sun), between 9 a.m. and 1 o'clock p.m. These observations are reduced, with approximate corrections, for time-ball purposes. The rates deduced from them are not generally given in the present volume.

The observations in right ascension have been made generally by the eye and ear method, because attention has been chiefly directed to the slow-moving stars near the South Pole; but the observations of the moon and moon-culminating stars, made towards the end of the year in connection with the longitude determinations of the Transit of Venus Expeditions, were registered by the galvanic method on a Bond's Spring-Governor Chronograph. It has, however, been the rule for each observer to fix his clock-error by observations of clock-stars, whose right ascensions do not differ much from the group of stars under observation for place, and always to fix the clock-error by the eye and ear method if the stars for place are observed eye and ear. The results contained in the present volume should, therefore, be only very slightly affected by the personal equations of the observers. The mean personal equations have, however, been determined and used in the determination of the rates of the Transit-clock.

The observations made by Messrs. Stone, Finlay, Maclear, Stevens, Freeman and Black, are distinguished by the letters S, F, G, C, I, and B, respectively.

Taking Mr. G. Maclear's clock-errors as a standard, the following are the clock-errors of the other observers:—

Clock-error by Mr. Stone	=	Clock-error fast	+ 0 ^h 01 ^m 17 ^s
Mr. Finlay	=		+ 0 ^h 02 ^m 25 ^s
Mr. Stevens	=		+ 0 ^h 01 ^m 15 ^s
Mr. Freeman	=		+ 0 ^h 00 ^m 07 ^s
Mr. Black	=		+ 0 ^h 00 ^m 29 ^s

The following Table gives the Adopted Mean Right Ascensions of the Stars observed for the determination of Clock-error in the year 1874, and the Seconds of the observed Right Ascensions of these Stars extracted from the Catalogue of the year. The observed Right Ascensions are only kept for place when at least four Stars have been observed by the same observer to fix the clock-error.

Assumed Mean Right Ascensions of Stars used for the determination of Clock-error in the Year 1874.

Star's Name.	Assumed R.A. 1874, Jan. 1.	Seconds of Observed R.A.	No. of Observations of R.A.	Star's Name.	Assumed R.A. 1874, Jan. 1.	Seconds of Observed R.A.	No. of Observations of R.A.
α Andromedæ	h m s 0 1 52.62	52.62	2	η Tauri	h m s 3 39 59.81	59.81	4
γ Pegasi	0 6 44.91	44.93	7	γ^1 Eridani	3 52 9.02	9.02	11
ϵ Ceti	0 13 0.39	0.43	1	A^1 Tauri	3 57 14.88		
44 Piscium	0 18 56.60			ω Tauri	4 1 49.64		
12 Ceti	0 23 36.44	36.45	11	ϕ^1 Eridani	4 5 42.90	42.89	4
ϵ Andromedæ	0 31 54.03	54.01	2	γ Tauri	4 12 37.45	37.42	2
β Ceti	0 37 15.80	15.80	31	ϵ Tauri	4 21 15.60	15.64	6
δ Piscium	0 42 8.70			α Tauri	4 28 41.50	41.50	15
20 Ceti	0 46 34.04			τ Tauri	4 34 41.00		
μ Andromedæ	0 49 45.83			μ Eridani	4 39 12.16	12.13	3
ϵ Piscium	0 56 24.30	24.27	7	ϵ Aurigæ	4 48 47.39	47.31	1
β Andromedæ	1 2 40.92	41.04	1	ϵ Leporis	5 0 7.64	7.58	7
ζ^1 Piscium	1 7 8.94	8.83	1	β Orionis	5 8 28.95	28.94	17
θ Ceti	1 17 43.48	43.57	7	β Tauri	5 18 19.66	19.66	13
η Piscium	1 24 44.56	44.59	10	δ Orionis	5 25 34.17	34.18	22
ν Piscium	1 34 52.47	52.52	4	α Leporis	5 27 10.39	10.37	6
ϕ Piscium	1 38 44.46	44.49	1	ϵ Orionis	5 29 49.17	49.21	15
β Arietis	1 47 40.88	40.89	3	α Columbæ	5 35 5.29	5.15	12
α Arietis	2 0 4.38	4.39	9	ϵ Orionis	5 41 46.81	46.86	2
ξ^1 Ceti	2 6 19.40			α Orionis	5 48 21.02	21.05	11
67 Ceti	2 10 41.90	41.93	11	ι Geminorum	5 56 27.65		
ξ^2 Ceti	2 21 27.66	27.65	7	ν Orionis	6 0 22.66	22.67	6
ν Ceti	2 29 15.72	15.69	1	η Geminorum	6 7 16.30		
δ Ceti	2 33 1.52	1.56	1	μ Geminorum	6 15 20.25	20.21	23
γ^2 Ceti	2 36 46.35	46.34	7	β Canis Majoris...	6 17 9.06		
σ Arietis	2 44 32.24	32.33	2	ν Geminorum	6 21 28.85		
ϵ Arietis	2 52 0.62			γ Geminorum	6 30 25.90	25.93	5
α Ceti	2 55 41.63	41.62	25	ξ Geminorum	6 38 13.03		
δ Arietis	3 4 25.59	25.60	4	θ Canis Majoris...	6 48 20.14	20.16	1
τ^1 Arietis	3 13 57.29			ϵ Canis Majoris...	6 53 40.42	40.36	15
ϕ Tauri	3 18 2.08			ζ Geminorum	6 56 38.10		
f Tauri	3 23 55.10			γ Canis Majoris...	6 58 3.48	3.44	9
ϵ Eridani	3 26 59.65			ς^1 Geminorum	7 6 8.12		
11 Tauri	3 33 14.87			δ Geminorum	7 12 35.81	35.85	3
δ Eridani	3 37 12.74	12.72	3	β Canis Minoris...	7 20 19.02		

Star's Name.	Assumed R.A. 1874, Jan. 1.	Seconds of Observed R.A.	No. of Observations of R.A.	Star's Name.	Assumed R.A. 1874, Jan. 1.	Seconds of Observed R.A.	No. of Observations of R.A.
	h m s	s			h m s	s	
α Geminorum.....	7 26 33'48	33'48	2	σ Virginis.....	11 58 47'44		
α Canis Minoris	7 32 42'31	42'28	17	ϵ Corvi.....	12 3 38'82	38'73	15
β Geminorum.....	7 37 36'18	36'28	1	η Virginis.....	12 13 27'55	27'56	20
ξ Navis.....	7 43 59'72			δ^a Corvi.....	12 23 20'88	20'83	1
δ Cancri.....	7 55 46'61	46'60	27	β Corvi.....	12 27 46'21	46'21	20
γ Argus.....	8 2 10'65	10'65	5	ρ Virginis.....	12 35 30'42		
β Cancri.....	8 9 40'84	40'93	1	γ Virginis.....	12 41 26'47	26'49	2
δ^1 Cancri.....	8 16 8'81	8'89	1	γ^1 Comæ.....	12 45 33'63		
η Cancri.....	8 25 25'20	25'21	12	δ Virginis.....	12 49 15'42	15'41	1
γ Cancri.....	8 35 59'49	59'47	1	ϵ Virginis.....	12 55 54'28		
ϵ Hydræ.....	8 40 6'12	6'11	10	θ Virginis.....	13 3 25'60	25'63	23
α Cancri.....	8 51 35'64	35'72	3	α Virginis.....	13 18 33'37	33'37	14
κ Cancri.....	9 0 55'26	55'32	2	ζ Virginis.....	13 28 16'40	16'36	7
δ^3 Cancri.....	9 11 56'75	56'77	8	μ Virginis.....	13 34 59'98		
α Hydræ.....	9 21 23'69	23'68	24	τ Boötis.....	13 41 16'48		
ξ Leonis.....	9 25 9'15			η Boötis.....	13 48 41'12	41'04	3
σ Leonis.....	9 34 25'44	25'48	2	τ Virginis.....	13 55 14'07	14'10	22
ϵ Leonis.....	9 38 41'76	41'75	12	η^4 Virginis.....	13 59 37'49	37'59	1
μ Leonis.....	9 45 35'63	35'59	1	κ Virginis.....	14 6 10'55		
π Leonis.....	9 53 33'22	33'22	12	α Boötis.....	14 9 54'86	54'84	18
α Leonis.....	10 1 39'57	39'56	11	f Boötis.....	14 20 35'79		
γ^1 Leonis.....	10 13 1'36	1'39	12	ρ Boötis.....	14 26 23'97	23'97	1
μ Hydræ.....	10 19 59'82	59'82	4	α Boötis.....	14 39 29'05	28'99	7
ρ Leonis.....	10 26 10'52	10'54	14	α^a Libræ.....	14 43 54'62	54'60	21
γ^4 Sextantis.....	10 36 7'03	7'01	5	ξ^a Libræ.....	14 49 55'98		
ι Leonis.....	10 42 37'97	37'99	5	ψ Boötis.....	14 59 2'80	2'84	3
d Leonis.....	10 54 3'13	3'14	1	ι^1 Libræ.....	15 5 2'49		
χ Leonis.....	10 58 30'98	31'00	14	β Libræ.....	15 10 13'65	13'68	10
δ Leonis.....	11 7 24'29	24'20	4	σ^a Libræ.....	15 16 0'21		
δ Crateris.....	11 13 2'53	2'39	3	ζ^1 Libræ.....	15 21 9'19		
τ Leonis.....	11 21 27'39	27'46	4	α Coronæ.....	15 29 21'19	21'10	3
ν Leonis.....	11 30 29'82	29'83	14	α Serpentis.....	15 38 3'73	3'73	18
β Leonis.....	11 42 37'88	37'88	7	ϵ Serpentis.....	15 44 32'13		
β Virginis.....	11 44 7'87			γ Serpentis.....	15 50 38'03		
π Virginis.....	11 54 24'96	24'96	2	β^1 Scorpii.....	15 58 6'74	6'73	17

Star's Name.	Assumed R.A. 1874, Jan. 1.	Seconds of Observed R.A.	No. of Observations of R.A.	Star's Name.	Assumed R.A. 1874, Jan. 1.	Seconds of Observed R.A.	No. of Observations of R.A.
δ Ophiuchi.....	h m s 16 7 44.56	s 44.61	12	ϵ Sagittarii.....	h m s 19 54 54.43	s	
γ Herculis.....	16 16 21.71			θ Aquilæ.....	20 4 48.14	48.23	1
α Scorpii.....	16 21 41.03	40.98	23	α^3 Capricorni.....	20 11 3.70	3.70	4
λ Ophiuchi.....	16 24 33.55			β Capricorni.....	20 13 55.78		
ζ Ophiuchi.....	16 30 13.29			ρ Capricorni.....	20 21 40.24	40.28	19
ζ Herculis.....	16 36 32.24	32.21	2	ϵ Delphini.....	20 27 11.55		
κ Ophiuchi.....	16 51 42.25	42.29	14	α Delphini.....	20 33 47.12		
ϵ Herculis.....	16 55 28.16			ϵ Aquarii.....	20 40 51.18	51.23	2
η Ophiuchi.....	17 3 9.14			μ Aquarii.....	20 45 51.34		
α^1 Herculis.....	17 8 54.13	54.14	3	β Vulpeculæ.....	20 49 11.39	11.36	7
θ Ophiuchi.....	17 14 16.32	16.30	8	θ Capricorni.....	20 58 51.70		
σ Ophiuchi.....	17 20 15.78			ζ Cygni.....	21 7 34.42	34.36	2
α Ophiuchi.....	17 29 5.11	5.20	10	α Equulei.....	21 9 31.46		
β Ophiuchi.....	17 37 14.86	14.93	1	ϵ Capricorni.....	21 15 13.68		
μ Herculis.....	17 41 31.67	31.60	11	β Aquarii.....	21 24 55.43	55.43	23
δ Herculis.....	17 50 20.21			ξ Aquarii.....	21 31 2.52		
γ Ophiuchi.....	18 1 22.54	22.52	1	ϵ Pegasi.....	21 37 59.84	59.80	7
μ^1 Sagittarii.....	18 6 13.63	13.67	12	δ Capricorni.....	21 40 5.01		
η Serpentis.....	18 14 47.38			ρ Pegasi.....	21 47 19.77	19.72	4
λ Sagittarii.....	18 20 11.64			α Aquarii.....	21 59 18.63	18.69	16
α Lyrae.....	18 32 40.32	40.27	8	ϵ Pegasi.....	22 1 8.75		
α Aquilæ.....	18 35 22.42	22.44	1	θ Aquarii.....	22 10 10.97	10.96	7
β^1 Lyrae.....	18 45 25.66	25.54	1	γ Aquarii.....	22 15 8.82		
ϵ^3 Aquilæ.....	18 53 54.17	54.24	1	σ Aquarii.....	22 23 58.62		
ζ Aquilæ.....	18 59 37.06	37.11	12	η Aquarii.....	22 28 52.82	52.85	13
ψ Sagittarii.....	19 7 48.72	48.71	1	ζ Pegasi.....	22 35 10.63	10.65	9
ω Aquilæ.....	19 11 54.08	54.14	10	μ Pegasi.....	22 43 55.36		
δ Aquilæ.....	19 19 8.65	8.67	11	λ Aquarii.....	22 46 2.32		
α Vulpeculæ.....	19 23 27.74	27.73	2	α Piscis Australis	22 50 40.99	40.98	15
μ Aquilæ.....	19 27 56.00			α Pegasi.....	22 58 29.09	29.08	9
δ^3 Sagittarii.....	19 29 2.27	2.26	8	γ Piscium.....	23 10 37.94	37.97	4
ϵ^1 Sagittarii.....	19 33 30.19			κ Piscium.....	23 20 28.35	28.40	5
γ Aquilæ.....	19 40 16.12	16.15	4	ϵ Piscium.....	23 33 28.16	28.19	6
α Aquilæ.....	19 44 38.09	38.11	18	δ Sculptoris.....	23 42 21.55	21.46	3
β Aquilæ.....	19 49 7.40	7.42	9	ω Piscium.....	23 52 50.47	50.48	14
				α Ceti.....	23 57 16.99		

The corrections for the determination of the Mean Right Ascensions from the apparent Right Ascensions for all Stars contained in the Nautical Almanac, have, except for σ Octantis, been extracted from that work. The corrections for all other Stars contained in the Greenwich Catalogue for 1864 have been computed with the constants of that work, but no correction for the proper motion for the fraction of the year has been applied. For all other Stars, Star-Constants have been specially computed, but in these cases also the proper motion for the fraction of the year has not been applied. The only difficulty which I have experienced in the discussion of the Right Ascensions, has arisen from a change in Mr. Freeman's personal equation, which took place after an illness which prevented his observing from August 6, to September 5, 1873. When Mr. Freeman recommenced observing on September 5, 1873, he appears to have systematically observed the time of transit over the wires too late, and for slow-moving Stars the error thus introduced was considerable. As the pressure of back work prevented the current reductions from being kept so close up as could have been wished, the change in habit was not detected for some considerable time. It was not until the end of the year 1874, when the Azimuthal-errors determined in 1873 were under discussion, that the magnitude of the change was detected.

The following Table gives the excess of the Azimuthal-errors determined by Mr. Freeman over those determined by the other observers, from September 5, 1873, to December 31, 1874 :—

Excess of Azimuthal-Error determined by Mr. Freeman.

Determining Star.	Approximate N.P.D.	Above Pole.	No. of Comp.	Below Pole.	No. of Comp.
	^o [']	^s		^s	
B Octantis.....	179 26	+ 0'164	6	— 0'144	2
σ Octantis.....	179 17	+ 0'154	5	— 0'169	2
α Octantis.....	179 4	+ 0'132	7	— 0'121	4
A Octantis.....	178 30	+ 0'142	6	— 0'077	2
τ Octantis.....	178 10	+ 0'038	1	— 0'087	2
Z Octantis.....	177 38	+ 0'080	4	— 0'069	4
C Octantis.....	176 37	+ 0'072	10	— 0'060	3

The comparisons given in the above Table have been made as follows : Whenever the Azimuthal-error has been determined on the same day by Mr. Freeman and either of the other observers then the difference between these results is taken. Whenever there are determinations of the Azimuthal-error by other observers on the day before and on the day after that on which Mr. Freeman's determination is made, then the mean of the two determinations is taken for comparison with Mr. Freeman's result. It does not appear that Mr. Freeman systematically allowed the

Stars to pass beyond the wires by some constant angular quantity before recording the times. In such a case the error would be equivalent to a change of the line of collimation required for the reduction of the observations. The peculiarity appears to be confined principally, but not exclusively, to observations of very slow moving stars. The course which I have adopted for the reduction of Mr. Freeman's observations in the year 1874 is the same as that adopted for the reduction of his observations after September 5 in the year 1873. The Azimuthal-errors derived from Mr. Freeman's observations of σ Octantis on 1874, August 24, β Octantis on September 28, and of α Octantis on November 2, have been used unaltered. In making these observations the contacts of the apparent discs of the stars with the wires were observed instead of the bisections. In all other cases, during the year 1874, the Azimuthal-errors derived from Mr. Freeman's observations have been corrected by the application of quantities derived from the following Table before they have been used in the reduction of the observations:—

Correction to Azimuthal-Error determined by Mr. Freeman.

Determining Star.	Above Pole.	Below Pole.
B Octantis.....	} — 0 ^s 160	+ 0 ^s 160
σ Octantis.....		
α Octantis.....		
A Octantis.....	} — 0 ^s 093	+ 0 ^s 093
τ Octantis.....		
Z Octantis.....	} — 0 ^s 065	+ 0 ^s 065
C Octantis.....		

The corrections are the same as those used in 1873, and were determined from the observations made from 1873, September 5 to 1874, June 30.

The Azimuthal-errors thus adopted should be sensibly correct and, as the clock-errors used in the reductions of Mr. Freeman's observations were determined by him, we might expect that the only errors left in Mr. Freeman's determinations of Right Ascensions thus reduced would be the difference between his habit of observing the Stars for place and the Stars for clock-error. I have rejected all Mr. Freeman's determinations of Right Ascensions of Stars within five degrees of the pole. As a check upon the practical elimination from the results of any serious ill-effects of Mr. Freeman's personal habit of observing in the zone N.P.D. 155° to 165°, I have had the mean excess of his determinations of the Right Ascensions of Stars within this zone over the determinations by the other observers taken for the year 1874. The result of more than 800 comparisons shows that Mr. Freeman's Right Ascensions are still relatively too large for Stars observed above the pole by 0^s16, and this should represent the difference between Mr. Freeman's habit of observing Stars in the zone 155° to 165° N.P.D. and the Stars of the usual clock-star list when referred to the mean habit of the other observers.

No further correction of the Right Ascensions observed by Mr. Freeman has appeared desirable, for similar personalities to small amounts would appear to exist in the work of some of the other observers. I may mention that on calling Mr. Freeman's attention to the peculiar method of observing pole Stars, which he appeared to have adopted after September 5, 1873, the peculiarity sensibly disappeared after a few day's attention to the point. Mr. Freeman has observed with the Transit-circle since 1863, and is therefore an observer of some standing.

CIRCLE OBSERVATIONS.

There are six microscopes, placed at equal angular distances around the circle, which are read at every circle observation. If S_r denote the correction to the reading of the circle for division errors when the divisions under the microscopes are r , $r+60$, $r+120$, $r+180$, $r+240$, $r+300$ the circle is so placed that when the zenith distance pointer reads zero, the division correction is S_{30} , and when the zenith distance pointer reads 5° South, the division correction is S_{35} .

In the month of December, 1855, soon after the mounting of the Transit-circle, the mean corrections required by every pair of divisions of the Transit-circle from 0° to 180° were determined at intervals of 5° . The method adopted was that described in the Greenwich Volumes for the years 1852 and 1867. The observations made for the determination of these corrections were not very numerous, but in the mean of the six microscopes accidental errors of observation are greatly smoothed down.

A re-examination of these mean division corrections was made by me in 1871. The results of the two independent determinations then made and those found from the observations made in 1855 are contained in the following Table:—

Divisions under Microscopes.	Correction required to the Mean Reading.		
	1855.	1871. 1st Set.	1871. 2nd Set.
S_0	— 3'138	— 2'986	— 3'023
S_5	— 2'568	— 2'650	— 2'635
S_{10}	— 2'687	— 2'691	— 2'673
S_{15}	— 3'261	— 3'145	— 3'189
S_{20}	— 3'181	— 3'429	— 3'376
S_{25}	— 3'215	— 3'019	— 2'972
S_{30}	— 2'854	— 2'914	— 2'891
S_{35}	— 3'092	— 3'014	— 3'011
S_{40}	— 3'260	— 3'265	— 3'279
S_{45}	— 3'429	— 3'563	— 3'548
S_{50}	— 3'605	— 3'453	— 3'463
S_{55}	— 3'351	— 3'521	— 3'504

Z.D. Pointer.	Correction.	Z.D. Pointer.	Correction.	Z.D. Pointer.	Correction.	Z.D. Pointer.	Correction.	Z.D. Pointer.	Correction.	Z.D. Pointer.	Correction.	Z.D. Pointer.	Correction.
147	1'26	178	1'70	209	1'44	240	1'71	271	1'70	302	1'68	333	1'92
148	1'34	179	1'71	210	1'55	241	1'71	272	1'80	303	1'66	334	1'94
149	1'44	180	1'71	211	1'70	242	1'68	273	1'92	304	1'62	335	1'98
150	1'55	181	1'71	212	1'80	243	1'66	274	1'94	305	1'56	336	1'99
151	1'70	182	1'68	213	1'92	244	1'62	275	1'98	306	1'53	337	1'98
152	1'80	183	1'66	214	1'94	245	1'56	276	1'99	307	1'47	338	1'98
153	1'92	184	1'62	215	1'98	246	1'53	277	1'98	308	1'44	339	1'97
154	1'94	185	1'56	216	1'99	247	1'47	278	1'98	309	1'37	340	1'92
155	1'98	186	1'53	217	1'98	248	1'44	279	1'97	310	1'34	341	1'88
156	1'99	187	1'47	218	1'98	249	1'37	280	1'92	311	1'27	342	1'72
157	1'98	188	1'44	219	1'97	250	1'34	281	1'88	312	1'22	343	1'57
158	1'98	189	1'37	220	1'92	251	1'27	282	1'72	313	1'16	344	1'48
159	1'97	190	1'34	221	1'88	252	1'22	283	1'57	314	1'13	345	1'40
160	1'92	191	1'27	222	1'72	253	1'16	284	1'48	315	1'09	346	1'37
161	1'88	192	1'22	223	1'57	254	1'13	285	1'40	316	1'06	347	1'33
162	1'72	193	1'16	224	1'48	255	1'09	286	1'37	317	1'05	348	1'30
163	1'57	194	1'13	225	1'40	256	1'06	287	1'33	318	1'06	349	1'28
164	1'48	195	1'09	226	1'37	257	1'05	288	1'30	319	1'07	350	1'27
165	1'40	196	1'06	227	1'33	258	1'06	289	1'28	320	1'09	351	1'28
166	1'37	197	1'05	228	1'30	259	1'07	290	1'27	321	1'10	352	1'30
167	1'33	198	1'06	229	1'28	260	1'09	291	1'28	322	1'10	353	1'35
168	1'30	199	1'07	230	1'27	261	1'10	292	1'30	323	1'12	354	1'42
169	1'28	200	1'09	231	1'28	262	1'10	293	1'35	324	1'14	355	1'53
170	1'27	201	1'10	232	1'30	263	1'12	294	1'42	325	1'14	356	1'60
171	1'28	202	1'10	233	1'35	264	1'14	295	1'53	326	1'22	357	1'66
172	1'30	203	1'12	234	1'42	265	1'14	296	1'60	327	1'26	358	1'70
173	1'35	204	1'24	235	1'53	266	1'22	297	1'66	328	1'34	359	1'71
174	1'42	205	1'14	236	1'60	267	1'26	298	1'70	329	1'44	0	1'71
175	1'53	206	1'22	237	1'66	268	1'34	299	1'71	330	1'55		
176	1'60	207	1'26	238	1'70	269	1'44	300	1'71	331	1'70		
177	1'66	208	1'34	239	1'71	270	1'55	301	1'71	332	1'80		

The mean run of the microscope-micrometers for 5' of arc on the circle will be found in Table V. The correction for runs is rather large, but the results by the different observers are accordant, and the annual changes small. The runs are in general taken on each observing night, and used for the reduction of the observations made on that night.

The Astronomical flexure of the Transit-circle, as determined from observations of the opposite collimators, appeared to be insensible, and no correction for flexure has been applied to the circle observations during the year 1874.

The Nadir-point determinations will be found in Table VI. The annual changes amount to $\pm 10''$ from the mean. The determinations of

the Nadir made on the same day, are generally very accordant, but from the magnitude of the annual changes in the Nadir and Level I have made it a rule to use for the reductions of each night the instrumental corrections determined on that night by the same person who observes the Stars for place.

Personal peculiarities in the observers' work should also in this way be much reduced. There appears to be some connection between the changes in the Nadir readings and the accumulation of back water in the rivers around the Observatory.

The inclination of the wire has been carefully examined from time to time, and the required corrections for the inclination and curvature applied when the Stars have been observed off the Meridian.

In the reduction of the Circle Observations I have thought it right to adopt the zenith-point corrections deduced from the observations with the reflecting eye-piece. I have been led to adopt this course from the following considerations :—The probable errors of the determinations of the zenith-point readings with the reflecting eye-piece are much less than when determined by direct and reflected observations of Stars. The zenith-point reading with the reflecting eye-piece can be determined on every night, but no satisfactory determinations of it by reflection observations of Stars are possible on the windy nights which frequently prevail here during the summer months.

No mere constant errors in the zenith-point readings should affect injuriously the resulting North Polar Distances when a correction is introduced into the results to render the North Polar Distances determined above and below the pole equal to each other. Should any systematic discordance be found to exist between the zenith-point readings determined by the reflecting eye-piece and from direct and reflection observations of Stars, the introduction of the necessary corrections into the results would be greatly facilitated if the zenith-point readings have been adopted from the observations of the Nadir with the reflecting eye-piece rather than from observations of Stars at different zenith distances.

In the results of the present volume it will be understood that the zenith-point readings have been exclusively determined from observations with the reflecting eye-piece.

The refractions used are those of Bessel's *Tabulæ Regiomontanæ* down to 85° zenith distance. Below 85° zenith distance the mean refractions are those of the *Fundamenta* multiplied by 1.003282. The whole of the refractions are therefore deduced with the mean refractions of the *Fundamenta* multiplied by 1.003282. The barometer used is the standard one of the Observatory. The thermometer is placed in a crib before a south window in the Transit-circle room.

The latitude adopted in forming the results given in the Ledger and Catalogue is

$33^{\circ} 56' 3''.56$ South.

The correction which this adopted latitude appears to require from the observations of the year will be subsequently exhibited.

The corrections to deduce the Mean North Polar Distances from the apparent North Polar Distances have been taken from the Nautical Almanac for all Stars contained in that work. The corrections for all other Stars contained in the Greenwich Catalogue for 1864 have been calculated with the Star-Constants given in that work. For all other Stars the Constants have been computed with the data adopted in the Nautical Almanac of the year.

No allowance has been made for proper motion for the fraction of the year except for the Nautical Almanac Stars.

In the years 1870, 1871, 1872, and part of the year 1873 there existed a systematic discordance of rather more than a second of arc between the zenith point readings determined with the reflecting eye-piece and from direct and reflection observations of Stars. The existence of some such discordance also manifested itself in the determinations of the colatitude correction from the results of the observations made during these years, and it was further confirmed by direct observations of a pair of opposite collimators inclined at angles $\pm 30^\circ$ Z.D. I thought it desirable, therefore, to attempt a correction of the circle readings, and for this purpose assumed that these readings required a correction of the form

$$a \sin z + b \cos z + c \sin 3z.$$

The Constants in this formula were determined from observations of the opposite horizontal collimating telescopes, and from a comparison of the zenith point readings determined with the reflecting eye-piece and from direct and reflected observations of Stars. The corrections thus determined were applied in the formation of the Catalogued North Polar Distances given for the years 1871, 1872, and 1873. The planetary observations are similarly corrected, but the Ledger Results are given as derived directly by the application of the zenith-point readings found from the use of the reflecting eye-piece, and are, therefore, uncorrected for the discordance between the zenith-point readings. It has already been mentioned in the Transit Section that the wires of the Transit-circle were found broken on May 30, 1873. When I inserted a new system of wires I availed myself of the opportunity of readjusting the instrument generally. On resuming observations with the Transit-circle on June 30, 1873, the pressure of the work marked out for the year prevented the making of any considerable number of reflection observations of Stars. Those made during the remainder of the year 1873 were not sufficiently numerous to answer satisfactorily for a quantity smaller than one second of arc, and although the discordance between the zenith-point readings did appear smaller than before the readjustment of the instrument, I thought it better, on the whole, with the evidence then before me, to apply the correction to all the results of the year 1873. The observations made in the year 1874 show, however, that the discordance, which certainly existed in 1870, 1871, and 1872, either does not exist at all, or is now of a small amount. The Astronomical flexure of the instrument has been found to have changed, and is now practically insensible, and with this change the cause

of the discordance between the zenith-point readings has sensibly disappeared. But although the discordance between the Nadir points appeared smaller after the readjustments in June, 1873, some observations for flexure, which I made in September, 1873, showed that the flexure still remained unchanged at about $0^{\circ}60$. It was not until after some further readjustments at the end of December, 1873, that the flexure was found practically insensible. The agreement between the corrected results 1871-1873, and the observations made in 1874 and 1875 is very close, and I believe that any systematic errors which may be left in the catalogued North Polar Distances 1871-1873, as printed, are very small indeed, and that the course pursued in the correction of the results has been satisfactory.

To show the amount of the discordance which exists between the zenith point readings determined from the reflecting eye-piece and direct and reflection observations of Stars, I have given in the following Tables the result of all the reflection observations made during the years 1874 and 1875, and 1876 to the end of May. It will be seen that the discordance is small, and that its value in the different years varies more than its mean amount. I have not, therefore, thought it desirable to apply any correction whatever to the N.P.D.'s which result from the use of the zenith-point readings made with the reflecting eye-piece. I can only regard the cause of the discordance which existed 1870-1873 as mechanical.

Zenith-Point Corrections found from Observations of Stars, compared with the corresponding corrections found from Observations with the Nadir reflecting eye-piece.

STARS SOUTH OF ZENITH.

Date.	Star.	Z.P. Correction.		Diff. (Wire — *)	
		From *	From Reflecting Eye-piece.		
1874.					
Nov. 6	γ Tucanæ.....	6 29'20	6 28'72	— 0'48	
9	α^2 Centauri.....	6 28'83	6 28'51	— 0'32	
10	β Centauri.....	6 29'10	6 28'48	— 0'62	
	α^2 Centauri.....	6 28'37	6 28'48		+ 0'11
12	μ Phœnicis.....	6 28'45	6 28'25	— 0'20	
17	α Eridani.....	6 28'63	6 28'61	— 0'02	
19	α Eridani.....	6 28'33	6 28'82		+ 0'49
27	B.A.C. 275.....	6 27'85	6 28'05		+ 0'20
30	α Eridani.....	6 29'03	6 28'11	— 0'92	
Dec. 4	α Eridani.....	6 28'05	6 27'81	— 0'24	
7	α Eridani.....	6 28'01	6 28'17		+ 0'16
Therefore Z.P. correction from reflecting eye-piece = corr. from South Stars — $0^{\circ}17$.					

STARS NORTH OF ZENITH.

Date.	Star.	Z.P. Correction.		Diff. (Wire - *)	
		From *	From Reflecting Eye-piece.		
1875.					
Oct. 12	B.A.C. 8365.....	7 27'51	7 27'32	- 0'19	
	B.A.C. 163.....	7 27'27	7 27'32		+ 0'05
27	η Aquarii.....	7 26'23	7 26'55		+ 0'32
28	α Ophiuchi.....	7 26'42	7 26'57		+ 0'15
Nov. 6	δ Piscium.....	7 26'77	7 26'28	- 0'49	
11	δ Piscium.....	7 26'41	7 26'17	- 0'24	
18	δ Piscium.....	7 26'12	7 26'42		+ 0'30
Z.P. correction from reflecting eye-piece = corr. from North Stars - 0'01.					

STARS SOUTH OF ZENITH.

Date.	Star.	Z.P. Correction.		Diff. (Wire - *)	
		From *	From Reflecting Eye-piece.		
1876.					
April 11	α Crucis.....	6 33'03	6 33'38		+ 0'35
19	Lacaille 5589.....	6 33'43	6 33'73		+ 0'30
	α Eridani.....	6 34'06	6 33'00	- 1'06	
25	β Centauri.....	6 32'78	6 34'09		+ 1'31
May 31	κ Triang. Aust.....	6 30'61	6 30'30	- 0'31	
Z.P. correction from reflecting eye-piece = corr. from South Stars + 0'30					

STARS NORTH OF ZENITH.

Date.	Star.	Z.P. Correction.		Diff. (Wire - *)	
		From *	From Reflecting Eye-piece.		
1876.					
April 19	α Tauri.....	6 33'56	6 33'73		+ 0'17
25	ξ Virginis.....	6 33'88	6 34'09		+ 0'21
Z.P. correction from reflecting eye-piece = corr. from North Stars + 0'19.					

The discordance between the zenith-points determined by reflexion observations of Stars and with the reflecting eye-piece in 1874 is but small. The colatitude which results from the observations of the year is therefore entitled to be received with confidence.

The following Table exhibits the differences between the North Polar distances observed above and below the pole when reduced with Bessel's Refraction Tables, and an assumed south latitude of the position of the Transit circle

$$33^{\circ}. 56'. 3''. 56$$

which is the latitude determined by me from the observations made during the years 1856 to 1860, when the discordance between the Nadir-points was also small.

The weights assigned to the results from the different Stars have been computed to the first decimal place from the formula

$$\overline{pe}^2 = 2 \epsilon^2 + \frac{e^2}{n} + \frac{e_1^2}{n_1}$$

where e and e_1 are the probable errors for the observations above and below the pole, and n and n_1 the corresponding number of observations.

The values of e and e_1 have been extracted from my paper "Probable Errors of Greenwich Observations in Zenith Distance estimated by mere discordances from the Separate Means," and ϵ is a constant which I have assumed equal to $0''.2$.

Colatitude Investigation, 1874.

Star's Name.	N.P.D. Above.	Below.	Difference Above—Below.	No. of Obs.	Weight.
	° ' "	"	"		
o Octantis.....	179 3 48.46	48.88	— 0.42	26.10	67
β Hydri.....	167 57 50.43	49.61	+ 0.82	32.10	63
Lacaille 3085.....	161 24 25.32	24.58	+ 0.74	3. 1	10
Lacaille 3188.....	162 53 33.36	33.12	+ 0.24	3. 1	10
Lacaille 3182.....	159 40 21.66	19.44	+ 2.22	3. 1	10
Lacaille 3203.....	159 36 44.41	41.61	+ 2.80	3. 1	10
Lacaille 3202.....	158 34 35.84	34.47	+ 1.37	3. 1	10
Lacaille 3225.....	155 36 27.71	27.82	— 0.11	3. 2	11
Lacaille 3242.....	158 14 50.13	48.03	+ 2.10	3. 1	10
A Octantis ...	178 30 0.72	0.34	+ 0.38	22.10	65
Lacaille 3355.....	161 6 48.62	49.45	— 0.83	3. 1	10
Lacaille 3384.....	155 42 59.76	60.64	— 0.88	3. 2	11
Lacaille 4233.....	155 44 52.52	52.88	— 0.36	1. 1	6
Brisbane 4091.....	179 6 26.67	27.00	— 0.33	2. 2	17
Z Octantis.....	177 37 40.66	40.98	— 0.32	30.20	81
σ Octantis.....	179 16 39.55	39.64	— 0.09	34.24	86
B Octantis.....	179 25 42.67	41.99	+ 0.68	3. 8	32
C Octantis.....	176 36 18.45	17.52	+ 0.93	22.17	75

Solving the equations by the method of least squares the correction to the assumed North Polar Distance of the Zenith comes out = $-0''.149$.

The latitude of the position of the Transit-circle, therefore, deduced from the observations made in 1874, is

$$33^{\circ}. 56'. 3''. 41 \text{ South.}$$

The range of zenith distance included in the "Colatitude Table" is not sufficiently great to allow of any very accurate separation of the error of assumed latitude from the errors arising from the Tables of Refraction used in the reductions. If we assume that Bessel's mean refractions require to be diminished in the proportion of $y : 1$, in order to represent the Cape Observations, the value of y resulting from the observations under consideration will be found equal to 0.0003 , a quantity much too small to be answered for in such a discussion.

The smallness of the correction thus deduced is, however, confirmed by a discussion of the observations made in 1870–1873.

It is clear that the corrections required by Bessel's Refraction Tables to represent the mean refractions at the Cape Observatory, with the thermometer in its present position, are but very small.

The latitude of the Transit-circle cannot, therefore, differ but very slightly from the value

$$33^{\circ}. 56'. 3''. 5 \text{ South.}$$

The longitude assumed in the reductions is that determined by Henderson $1^{\text{h}} 13^{\text{m}} 55^{\text{s}}$ East of Greenwich.

This determination, like all the other work of Henderson, appears to be a very close approximation to the truth.

The Comet observations with the Transit-circle were made below the Pole when the zenith distances were great. Comparison Stars near the Comet were, however, observed as a check upon the accuracy of the refraction corrections used in the reductions.

The results of the observations of the Transit of Venus made here have been forwarded to England and will, I presume, be published with the corresponding observations made at the other stations.

A few observations of the moon and moon-culminating stars were made towards the end of the year, and in January, 1875. The weather was, however, unusually cloudy, and no great number could be secured.

The labour of completing the reductions of a Catalogue of 1246 Stars, such as that contained in the present volume, is very great. The positions of, comparatively speaking, few of them have ever before been fixed with accuracy, and the data for the reduction of the observations have, therefore, all had to be computed by the staff at the Cape Observatory.

That under such circumstances the manuscript copy for 1874 should have been completed for some time, and that it is passed through the press in the first month of 1877, is, perhaps, the highest praise I could give the members of the staff who have been engaged upon the work. But the enormous expenditure of computing power absorbed in the computation

and recomputation of star constants, which when computed can only last for a very few years, is so serious that I have tried to obviate this inconvenience to some extent by the formation of Tables, either for facilitating the computation of the star constants under the usual form, or for the computation of the star corrections with a slightly modified form of constants. These Tables will be found in an Appendix to the present Volume. I will only say that the Tables have been found easy to use, and that the reductions are greatly facilitated by their use.

The observations during the year 1874 have been made by Messrs. Stone, Finlay, G. Maclear, C. Stevens, I. Freeman, and Black. The observations made by these observers are distinguished by the letters S, F, G, C, I, and B.

Mr Finlay has observed regularly with the Transit-circle, and taken a leading part in the examination of the reductions.

Mr Maclear, besides taking an active part in the meridian observing, has had general charge of the Time-ball arrangements.

I have not generally, unless during the illness or absence from other causes of some of the assistants, observed regularly with the Transit-circle, but I have made it a rule to observe occasionally to test the adjustments of the instrument.

The insertion of wires, all delicate adjustments, and determination of instrumental constants have been considered as a part of my duty. I am alone answerable for the direction of the work and for the accuracy of the published results.

E. J. STONE.

1877, January 22.

ROYAL OBSERVATORY,
CAPE OF GOOD HOPE.

T A B L E S
OF
INSTRUMENTAL CORRECTIONS,

1874.

TABLE I.

Collimation Errors of the Transit-circle during the Year 1874.

Day.	Error of Collimation.	Day.	Error of Collimation.
1874.	s	1874.	s
Jan. 1 — 12	— 0.048	June 6 — 27	+ 0.033
14 — 24	— 0.058	June 28—July 15	+ 0.044
25 — 27	— 0.059	July 16 — 31	+ 0.045
Jan. 28—Feb. 6	— 0.054	Aug. 1 — 31	+ 0.038
Feb. 7 — 10	— 0.061	Sept. 1 — 11	+ 0.024
11 — 25	— 0.057	12 — 23	+ 0.019
Feb. 26—Mar. 5	— 0.057	Sept. 24—Oct. 14 23 ^h 38 ^m	+ 0.014
Mar. 6 — 23	— 0.047	Oct. 14 23 ^h 39 ^m —Oct. 23	— 0.036
Mar. 24—Apr. 7	— 0.051	24—Nov. 15	— 0.051
Apr. 8 — 17	— 0.042	Nov. 16 — 20	— 0.060
18 — 27	— 0.038	Nov. 21—Dec. 6	— 0.064
Apr. 28—May 2	— 0.030	Dec. 7 — 11	— 0.054
May 3—June 1	— 0.021	12 — 20	— 0.068
June 2	+ 0.014	23 — 31	— 0.076
3 — 5	+ 0.023		

June 1. 23^h. One of the wide system of wires broke and twisted itself around the other wires. It was removed by Mr. Stone; the Collimation of the instrument appears to have been only slightly changed in effecting the removal.

Oct 14. The instrument received a blow between the transits of Lacaille 9558 and Lacaille 9584. The reading of the Collimation micrometer was 30'. 900 throughout the year.

TABLE II.

Level and Azimuthal Errors of the Transit-circle, 1874.

Day.	Observer.	Level Error.		Adopted Azimuthal Error.		Day.	Observer.	Level Error.		Adopted Azimuthal Error.
		Observed.	Adopted.					Observed.	Adopted.	
		s	s	s				s	s	s
January	2	I	+ 1'825	+ 1'825	+ 0'886	February	16	I	+ 1'464	+ 1'464
	5	I	+ 1'826	+ 1'826	+ 0'937		17	G	+ 1'425	
	7	F	+ 1'850	+ 1'850	+ 0'936		17	C	+ 1'435	+ 1'090
	9	I	+ 1'820	+ 1'820	+ 0'962		18	G	+ 1'407	+ 1'092
	12	F	+ 1'749	+ 1'749	+ 1'035		19	G	+ 1'378	
	13	I	+ 1'731	+ 1'731	+ 1'014		19	F	+ 1'392	+ 1'088
	14	C	+ 1'714	+ 1'714	+ 1'091		20	G	+ 1'351	
	15	F	+ 1'712	+ 1'712	+ 1'069		20	I	+ 1'373	+ 1'189
	16	I	+ 1'706	+ 1'706	+ 1'064		23	F	+ 1'334	+ 1'007
	17	C	+ 1'681	+ 1'681	+ 1'171		24	G	+ 1'301	+ 1'016
	19	I	+ 1'644	+ 1'644	+ 1'126		25	I	+ 1'328	+ 1'040
	20	F	+ 1'657	+ 1'657	+ 1'141		27	F	+ 1'320	+ 1'052
	21	C	+ 1'598	+ 1'598	+ 1'109		28	G	+ 1'304	+ 1'003
	22	G	+ 1'617	+ 1'617	+ 1'095					
	23	F	+ 1'611	+ 1'611	+ 1'082	March	2	C	+ 1'299	+ 0'977
	24	G	+ 1'581	+ 1'581	+ 1'129		3	G	+ 1'283	+ 0'912
	26	G	+ 1'562				8	G	+ 1'165	
	26	F	+ 1'550	+ 1'550	+ 1'179		9	I	+ 1'164	+ 1'008
	27	G	+ 1'541	+ 1'541	+ 1'144		10	C	+ 1'141	+ 0'833
	28	C	+ 1'545	+ 1'545	+ 1'175		12	I	+ 1'120	+ 0'815
	29	F	+ 1'559	+ 1'559	+ 1'234		13	G	+ 1'103	+ 0'837
	30	G	+ 1'526	+ 1'526	+ 1'120		14	F	+ 1'120	+ 0'855
	31	C	+ 1'534	+ 1'534	+ 1'187		16	C	+ 1'083	+ 0'789
February	2	F	+ 1'522	+ 1'522	+ 1'185		19	I	+ 1'050	+ 0'830
	3	C	+ 1'526	+ 1'526	+ 1'209		21	C	+ 1'050	+ 0'777
	4	G	+ 1'515	+ 1'515	+ 1'185		23	I	+ 1'054	+ 0'780
	6	C	+ 1'481	+ 1'481	+ 1'157		24	F	+ 1'069	+ 0'781
	7	G	+ 1'444	+ 1'444	+ 1'146		25	G	+ 1'103	+ 0'749
	9	F	+ 1'440	+ 1'440	+ 1'085		26	C	+ 1'117	+ 0'707
	11	G	+ 1'404	+ 1'404	+ 1'098		27	F	+ 1'113	+ 0'779
	12	I	+ 1'417	+ 1'417	+ 1'186		28	G	+ 1'100	+ 0'779
	13	C	+ 1'408	+ 1'408	+ 1'160		30	I	+ 1'084	+ 0'725
	14	G	+ 1'417				31	C	+ 1'073	+ 0'630
	14	F	+ 1'424	+ 1'424	+ 1'120					

STARS NORTH OF ZENITH.

Date.	Star.	Z.P. Correction.		Diff. (Wire — *)	
		From *	From Reflecting Eye-piece.		
1874.		' "	' "		
Nov. 10	α Leonis.....	6 28'79	6 28'48	— 0'31	
12	β Piscium.....	6 26'40	6 28'25		+ 1'85
	27 Piscium.....	6 27'17	6 28'25		+ 1'08
16	27 Piscium.....	6 28'90	6 28'53	— 0'37	
	B.A.C. 257.....	6 28'54	6 28'53	— 0'01	
17	27 Piscium.....	6 28'35	6 28'61		+ 0'26
19	ϵ Piscium.....	6 27'03	6 28'82		+ 1'79
	ω Piscium.....	6 27'94	6 28'82		+ 0'88
27	B.A.C. 374.....	6 30'10	6 28'05	— 2'05	
28	67 Ceti.....	6 27'28	6 27'90		+ 0'62
30	* near ϵ Piscium.....	6 27'11	6 28'11		+ 1'00
Dec. 4	δ Piscium.....	6 27'60	6 27'81		+ 0'21
	ϵ Piscium.....	6 27'91	6 27'81	— 0'10	
7	67 Ceti.....	6 27'23	6 28'17		+ 0'94

Z.P. correction from reflecting eye-piece = corr. from North Stars + 0'41.

STARS SOUTH OF ZENITH.

Date.	Star.	Z.P. Correction.		Diff. (Wire — *)	
		From *	From Reflecting Eye-piece.		
1875.		' "	' "		
Oct. 6	α^2 Centauri.....	7 28'50	7 27'76	— 0'74	
27	α^2 Centauri.....	7 27'85	7 26'80	— 1'05	
	β Centauri ..	7 26'85	7 26'55	— 0'30	
28	α^2 Centauri.....	7 27'87	7 26'55	— 1'32	
	α^1 Centauri.....	7 27'88	4 26'55	— 1'33	
30	α^2 Centauri.....	7 26'75	7 26'82		+ 0'07
Nov. 1	α^2 Centauri.....	7 26'91	4 26'75	— 0'16	
3	α^2 Centauri.....	7 27'56	7 26'45	— 1'11	
	α^1 Centauri.....	7 27'66	7 26'45	— 1'21	
5	β Centauri	7 27'26	7 26'18	— 1'08	
9	α^2 Centauri.....	7 26'24	7 26'31		+ 0'07
	α^1 Centauri.....	7 27'08	7 26'31	— 0'77	
17	α^2 Centauri.....	7 26'58	7 25'92	— 0'66	

Z.P. correction from reflecting eye-piece = corr. from South Stars — 0'74.

STARS NORTH OF ZENITH.

Date,	Star,	Z.P. Correction.		Diff. (Wire — *)	
		From *	From Reflecting Eye-piece.		
1875.		' "	' "	"	"
Oct. 12	B.A.C. 8365	7 27'51	7 27'32	— 0'19	
	B.A.C. 163	7 27'27	7 27'32		+ 0'05
27	η Aquarii	7 26'23	7 26'55		+ 0'32
28	α Ophiuchi	7 26'42	7 26'57		+ 0'15
Nov. 6	ϵ Piscium	7 26'77	7 26'28	— 0'49	
11	ϵ Piscium	7 26'41	7 26'17	— 0'24	
18	ϵ Piscium	7 26'12	7 26'42		+ 0'30

Z.P. correction from reflecting eye-piece = corr. from North Stars — 0'01.

STARS SOUTH OF ZENITH.

Date,	Star,	Z.P. Correction.		Diff. (Wire — *)	
		From *	From Reflecting Eye-piece.		
1876.		' "	' "	"	"
April 11	α Crucis	6 33'03	6 33'38		+ 0'35
19	Lacaille 5589	6 33'43	6 33'73		+ 0'30
	α Eridani	6 34'06	6 33'00	— 1'06	
25	β Centauri	6 32'78	6 34'09		+ 1'31
May 31	κ Triang. Aust.	6 30'61	6 30'30	— 0'31	

Z.P. correction from reflecting eye-piece = corr. from South Stars + 0'30

STARS NORTH OF ZENITH.

Date,	Star,	Z.P. Correction.		Diff. (Wire — *)	
		From *	From Reflecting Eye-piece.		
1876.		' "	' "		"
April 19	α Tauri	6 33'56	6 33'73		+ 0'17
25	ξ Virginis	6 33'88	6 34'09		+ 0'21

Z.P. correction from reflecting eye-piece = corr. from North Stars + 0'19.

TABLE II.—*Continued.**Level and Azimuthal Errors of the Transit-circle, 1874.*

Day.	Observer.	Level Error.		Adopted Azimuthal Error.	Day.	Observer.	Level Error.		Adopted Azimuthal Error.
		Observed.	Adopted.				Observed.	Adopted.	
		s	s	s			s	s	s
October 19	I	+1'649	+1'649	+0'648	November 23	I	+1'865	+1'865	+0'713
20	C	+1'670	+1'670	+0'651	25			+1'881	+0'650
21			+1'680		26	I	+1'896		
22	F	+1'690	+1'690	+0'589	27	G	+1'873	+1'873	+0'687
23	I	+1'691	+1'691	+0'658	28	F	+1'890	+1'890	+0'639
24	G	+1'694	+1'694	+0'611	29			+1'878	+0'639
26	B	+1'685	+1'685	+0'578	30	C	+1'865	+1'865	+0'642
26	F	+1'699		+0'696	December 2	F	+1'874	+1'874	+0'666
27	G	+1'699	+1'699	+0'577	3	I	+1'894	+1'894	+0'620
28	C	+1'756	+1'756	+0'577	4	C	+1'919	+1'919	+0'620
29	I	+1'760	+1'760	+0'557	5	G	+1'918	+1'918	+0'643
30	G	+1'779	+1'779	+0'629	6	G	+1'902	+1'902	+0'625
31	C	+1'757	+1'757	+0'671	7	F	+1'893	+1'893	+0'703
November 2	I	+1'771	+1'771	+0'653	8	I	+1'904	+1'904	+0'566
3	G	+1'773	+1'773	+0'640	9	G	+1'903	+1'903	+0'590
4	C	+1'786	+1'786	+0'638	10			+1'913	+0'624
6	F	+1'804	+1'804	+0'613	11	I	+1'923	+1'923	+0'587
10	G	+1'818	+1'818	+0'613	12	G	+1'937	+1'937	+0'640
11	I	+1'826	+1'826	+0'613	14	F	+1'929	+1'929	+0'636
12	F	+1'818	+1'818	+0'571	15	G	+1'933	+1'933	+0'735
13	G	+1'825	+1'825	+0'514	16	I	+1'954	+1'954	+0'665
14	B	+1'815	+1'815	+0'646	17	F	+1'950	+1'950	+0'717
16	I	+1'786	+1'786	+0'602	19	G	+1'977	+1'977	+0'658
17	F	+1'788	+1'788	+0'618	20	G	+1'969	+1'969	+0'664
18	G	+1'763	+1'763	+0'668	21			+1'977	+0'669
19	C	+1'779	+1'779	+0'646	22	F	+1'984		+0'710
20	G	+1'805	+1'805	+0'683	22	I	+1'984	+1'984	
21	B	+1'839	+1'839	+0'625					
22	G	+1'843	+1'843	+0'612	23	G	+1'940	+1'940	+0'615

TABLE III.

Separate Determinations of the Azimuthal Errors of the Transit-circle, made in 1874.

Date of Observation.	Observer.	Error of Azimuth.	How determined.
1874.		s	
January	2	I	+ 0.726 σ Octantis S.P. and ϵ Orionis.
	5	I	+ 0.777 σ Octantis S.P. and δ Orionis.
	7	F	+ 0.936 σ Octantis S.P. and α Orionis.
	9	I	+ 0.802 σ Octantis S.P. and μ Geminorum.
	12	F	+ 1.035 σ Octantis S.P. and β Orionis.
	13	I	+ 0.854 σ Octantis S.P. and μ Geminorum.
	14	C	+ 1.091 σ Octantis S.P. and μ Geminorum.
	15	F	+ 1.069 σ Octantis S.P. and δ Orionis.
	16	I	+ 0.904 σ Octantis S.P. and μ Geminorum.
	17	C	+ 1.171 σ Octantis S.P. and μ Geminorum.
	19	I	+ 0.966 σ Octantis S.P. and ϵ Orionis.
	20	F	+ 1.141 σ Octantis S.P. and ϵ Leporis.
	21	C	+ 1.109 σ Octantis S.P. and μ Geminorum.
	22	G	+ 1.095 σ Octantis S.P. and μ Geminorum.
	23	F	+ 1.082 σ Octantis S.P. and α Orionis.
	24	G	+ 1.129 σ Octantis S.P. and μ Geminorum.
	26	F	+ 1.179 σ Octantis S.P. and μ Geminorum.
	26	G	+ 1.167 Meridian Mark.
	27	G	+ 1.144 σ Octantis S.P. and μ Geminorum.
	28	C	+ 1.175 σ Octantis S.P. and μ Geminorum.
	29	F	+ 1.234 σ Octantis S.P. and μ Geminorum.
	30	G	+ 1.120 σ Octantis S.P. and μ Geminorum.
	31	C	+ 1.187 σ Octantis S.P. and μ Geminorum.
February	2	F	+ 1.185 σ Octantis S.P. and μ Geminorum.
	3	C	+ 1.209 σ Octantis S.P. and μ Geminorum.
	4	G	+ 1.185 σ Octantis S.P. and μ Geminorum.
	6	C	+ 1.157 σ Octantis S.P. and μ Geminorum.
	7	G	+ 1.146 σ Octantis S.P. and μ Geminorum.
	9	F	+ 1.085 A Octantis and 6 Cancri.
	11	G	+ 1.098 A Octantis and 6 Cancri.
	12	I	+ 1.279 A Octantis and 6 Cancri.
	13	C	+ 1.160 A Octantis and 6 Cancri.
	14	F	+ 1.120 A Octantis and 6 Cancri.
	17	G	+ 1.016 Meridian Mark.
	17	C	+ 1.090 A Octantis and η Cancri.
	18	G	+ 1.092 A Octantis and 6 Cancri.

TABLE III.—Continued.

Separate Determinations of the Azimuthal Errors of the Transit-circle, made in 1874.

Date of Observation.	Observer.	Error of Azimuth.	How determined.
1874.		s	
February 19	F	+ 1'088	A Octantis and 6 Cancr.
20	I	+ 1'282	A Octantis and 6 Cancr.
23	F	+ 1'007	A Octantis and 6 Cancr.
24	G	+ 1'016	A Octantis and 6 Cancr.
25	I	+ 0'880	σ Octantis S.P. and ϵ Canis Majoris.
27	F	+ 1'052	σ Octantis S.P. and α Orionis.
28	G	+ 1'003	A Octantis and η Cancr.
March 2	C	+ 0'977	σ Octantis S.P. and α Orionis.
3	G	+ 0'985	Meridian Mark.
3	G	+ 0'912	σ Octantis S.P. and μ Geminorum.
3	G	+ 0'917	Meridian Mark.
5	C	+ 0'798	σ Octantis S.P. and μ Geminorum.
7	C	+ 0'870	σ Octantis S.P. and μ Geminorum.
9	I	+ 1'101	A Octantis and 6 Cancr.
10	C	+ 0'833	σ Octantis S.P. and μ Geminorum.
12	I	+ 0'908	A Octantis and 6 Cancr.
13	G	+ 0'837	σ Octantis S.P. and μ Geminorum.
14	F	+ 0'855	σ Octantis S.P. and α Orionis.
16	C	+ 0'783	σ Octantis S.P. and ϵ Canis Majoris.
	C	+ 0'800	A Octantis and 6 Cancr.
19	I	+ 0'755	Three Consecutive Transits of β Hydr.
	I	+ 0'904	A Octantis and 6 Cancr.
21	F	+ 0'822	σ Octantis S.P. and δ Geminorum.
	F	+ 0'731	σ Octantis and μ Herculis.
22	{ F } { G }	+ 0'789	Two Consecutive Transits of σ Octantis.
23	I	+ 0'611	σ Octantis S.P. and ϵ Canis Majoris.
	I	+ 0'949	σ Octantis and α Lyræ.
24	F	+ 0'803	σ Octantis S.P. and γ Canis Majoris.
	G	+ 0'758	σ Octantis and μ Herculis.
25	G	+ 0'782	σ Octantis S.P. and μ Geminorum.
	S	+ 0'715	σ Octantis and α Aquilæ.
26	C	+ 0'747	σ Octantis S.P. and μ Geminorum.
	S	+ 0'666	σ Octantis and α Aquilæ.
{ 26 } { 27 }	F	+ 0'838	Three Consecutive Transits of β Hydr.
28	G	+ 0'582	Meridian Mark.

TABLE III.—Continued.

Separate Determinations of the Azimutbal Errors of the Transit-circle, made in 1874.

Day of Observation.		Observer.	Error of Azimuth.	How determined.
1874-			s	
March	28	F	+ 0.835	σ Octantis S.P. and μ Geminorum.
		F	+ 0.668	A Octantis and 6 Cancr.
	30	I	+ 0.791	A Octantis and η Cancr.
		I	+ 0.725	C Octantis S.P. and γ^1 Leonis.
		{ I } { C }	+ 0.725	Four Consecutive Transits of β Hydri.
31	C	+ 0.630	C Octantis S.P. and α Leonis.	
April	1	G	+ 0.529	C Octantis S.P. and α Leonis.
	{ G } { I }	+ 0.668	Three Consecutive Transits of β Hydri.	
	2	I	+ 0.588	C Octantis S.P. and γ^1 Leonis.
	4	F	+ 0.482	A Octantis and 6 Cancr.
		F	+ 0.696	C Octantis S.P. and ρ Leonis.
	7	C	+ 0.571	τ Octantis S.P. and ν Leonis.
		{ G } { C }	+ 0.525	Four Consecutive Transits of β Hydri.
	8	G	+ 0.552	A Octantis and η Cancr.
	9	I	+ 0.442	τ Octantis S.P. and ν Leonis.
		I	+ 0.520	Three Consecutive Transits of β Hydri.
	10	F	+ 0.468	τ Octantis S.P. and χ Leonis.
		{ F } { C }	+ 0.621	Three Consecutive Transits of β Hydri.
	11	C	+ 0.544	τ Octantis S.P. and χ Leonis.
	13	I	+ 0.455	τ Octantis S.P. and β Leonis.
	15	C	+ 0.540	τ Octantis S.P. and ν Leonis.
		{ C } { G }	+ 0.559	Three Consecutive Transits of β Hydri.
	20	F	+ 0.436	τ Octantis S.P. and χ Leonis.
		G	+ 0.440	A Octantis S.P. and ρ Capricorni
	21	C	+ 0.403	A Octantis and 6 Cancr.
	22	G	+ 0.365	A Octantis and η Cancr.
	23	G	+ 0.318	Meridian Mark.
	24	C	+ 0.360	A Octantis and η Cancr
	28	F	+ 0.337	Brisbane 4091 and θ Virginis.
	29	F	+ 0.267	Brisbane 4091 and η Virginis.
		C	+ 0.330	β Hydri and β Ceti.
	30	C	+ 0.330	A Octantis and η Cancr.
May	1	I	+ 0.220	σ Octantis S.P. and θ Virginis.
	4	I	+ 0.128	σ Octantis S.P. and α Virginis.
	5	C	+ 0.281	τ Octantis S.P. and ν Leonis.

TABLE III.—Continued.

Separate Determinations of the Azimutbal Errors of the Transit-circle, made in 1874.

Day of Observation.	Observer.	Error of Azimuth.	How determined.	
1874.		s		
May	6	F	+ 0.282	B Octantis S.P. and ϵ Leonis.
		G	+ 0.107	Meridian Mark.
		G	+ 0.248	B Octantis and β Vulpeculæ.
	7	G	+ 0.251	B Octantis S.P. and η Cancr.
		G	+ 0.228	B Octantis and β Vulpeculæ.
	8	I	+ 0.101	B Octantis S.P. and ϵ Leonis.
		I	+ 0.459	B Octantis and α Virginis.
	14	I	+ 0.121	B Octantis S.P. and π Leonis.
		I	+ 0.193	C Octantis S.P. and ρ Leonis.
	15	G	+ 0.251	C Octantis S.P. and γ^1 Leonis.
		G	+ 0.139	C Octantis and α Aquarii.
	16	F	+ 0.228	C Octantis S.P. and π Leonis.
	18	I	+ 0.150	C Octantis S.P. and ρ Leonis.
	19	C	+ 0.179	C Octantis S.P. and ρ Leonis.
		G	+ 0.181	Meridian Mark.
	22	F	+ 0.232	C Octantis S.P. and γ^1 Leonis.
	27	G	+ 0.144	C Octantis S.P. and γ^1 Leonis.
		G	+ 0.177	C Octantis and α Aquarii.
	28	I	+ 0.068	C Octantis S.P. and ρ Leonis.
		I	+ 0.209	C Octantis and η Aquarii.
	29	C	+ 0.209	C Octantis S.P. and ρ Leonis.
June	3	G	+ 0.119	Meridian Mark.
		G	+ 0.153	Z Octantis and τ Virginis.
	4	F	+ 0.193	Z Octantis and τ Virginis.
	5	I	+ 0.264	Z Octantis and β Libræ
	8	C	+ 0.076	Z Octantis and τ Virginis.
	9	F	+ 0.123	Z Octantis and τ Virginis.
	10	G	+ 0.069	Z Octantis and τ Virginis.
	11	I	+ 0.179	Z Octantis and α Boötis.
		G	+ 0.150	Meridian Mark.
	12	F	+ 0.147	Z Octantis and τ Virginis.
	13	G	+ 0.154	Z Octantis and η Boötis.
	15	C	+ 0.029	Z Octantis and τ Virginis.
	16	G	+ 0.067	Meridian Mark.
		G	+ 0.032	σ Octantis and μ Sagittarii.
	17	I	+ 0.043	σ Octantis S.P. and θ Virginis.

TABLE III.—Continued.

Separate Determinations of the Azimuthal Errors of the Transit-circle, made in 1874.

Day of Observation.		Observer.	Error of Azimuth.	How determined.
1874.			s	
June	18	C	+ 0°141	o Octantis S.P. and θ Virginis.
		G	+ 0°129	o Octantis and β Ceti.
	19	F	+ 0°200	o Octantis S.P. and θ Virginis.
		G	+ 0°070	Meridian Mark.
		G	+ 0°164	o Octantis and adopted rate.
	23	G	+ 0°413	o Octantis S.P. and β Corvi.
		G	+ 0°420	o Octantis and ω Piscium.
	24	C	+ 0°399	o Octantis S.P. and η Boötis.
	25	I	+ 0°291	o Octantis S.P. and α Virginis.
		I	+ 0°642	o Octantis and β Ceti.
	26	F	+ 0°571	o Octantis S.P. and θ Virginis.
		C	+ 0°537	o Octantis and ϵ Piscium.
	27	G	+ 0°547	o Octantis S.P. and η Boötis.
		G	+ 0°473	o Octantis and β Ceti.
	29	I	+ 0°627	Z Octantis and α Boötis.
July	3	I	+ 0°651	Z Octantis and α Boötis.
	6	G	+ 0°562	o Octantis S.P. and θ Virginis.
		G	+ 0°623	o Octantis and β Ceti.
	7	G	+ 0°559	Meridian Mark.
	8	F	+ 0°513	Z Octantis and α Boötis.
	9	I	+ 0°617	Z Octantis and α Boötis.
	13	I	+ 0°736	Z Octantis and α Boötis.
	16	I	+ 0°701	Z Octantis and α Libræ.
		I	+ 0°720	Z Octantis S.P. and α Ceti.
		G	+ 0°604	Meridian Mark.
	17	F	+ 0°645	Z Octantis and α Boötis.
		G	+ 0°798	Z Octantis S.P. and γ^2 Ceti.
	18	C	+ 0°615	Z Octantis and α Libræ.
		G	+ 0°761	Z Octantis S.P. and ξ^2 Ceti.
	20	F	+ 0°599	Z Octantis and ϵ^2 Boötis.
	21	C	+ 0°647	Z Octantis and ϵ^2 Boötis.
		F	+ 0°666	Z Octantis S.P. and ξ^2 Ceti.
	22	G	+ 0°684	Z Octantis and α Boötis.
		G	+ 0°719	Z Octantis S.P. and δ^2 Ceti.
	23	I	+ 0°753	Z Octantis and α Boötis.
		I	+ 0°638	Z Octantis S.P. and δ^2 Ceti.

TABLE III —Continued.

Separate Determinations of the Azimuthal Errors of the Transit-circle, made in 1847.

Day of Observation.		Observer.	Error of Azimuth.	How determined.
1874.			s	
July	24	C	+ 0.668	Z Octantis and α Boötis.
	27	I	+ 0.660	Z Octantis and α Libræ.
	28	G	+ 0.747	Lacaille 1884 S.P. and β Libræ.
	29	C	+ 0.705	Z Octantis and ϵ^2 Boötis.
	30	I	+ 0.759	Z Octantis and ψ Boötis.
	31	F	+ 0.708	Z Octantis and ϵ^2 Boötis.
August	1	G	+ 0.688	Z Octantis and α^2 Libræ.
		G	+ 0.772	Z Octantis and γ^2 Ceti.
	3	C	+ 0.765	Z Octantis and ϵ^2 Boötis.
		C	+ 0.774	σ Octantis and ϵ^2 Boötis.
	4	G	+ 0.705	Z Octantis and α^2 Libræ.
	6	F	+ 0.670	Z Octantis and ϵ^2 Boötis.
	7	G	+ 0.660	Z Octantis and ψ Boötis.
		G	+ 0.703	σ Octantis and α Ophiuchi.
	8	C	+ 0.688	σ Octantis and μ Sagittarii.
	11	C	+ 0.670	σ Octantis and α Serpentis.
	12	G	+ 0.738	σ Octantis and μ Sagittarii.
	13	I	+ 0.876	σ Octantis and μ Herculis.
	14	F	+ 0.731	σ Octantis and μ Herculis.
	15	G	+ 0.754	σ Octantis and μ Sagittarii.
	17	F	+ 0.741	σ Octantis and μ Herculis.
	19	G	+ 0.737	σ Octantis and μ Herculis.
	20	I	+ 0.905	σ Octantis and ζ Aquilæ.
	21	F	+ 0.677	σ Octantis and μ Herculis.
	22	G	+ 0.691	σ Octantis and μ Sagittarii.
	24	I	+ 0.794	σ Octantis and ζ Aquilæ.
	29	B	+ 0.629	σ Octantis and ζ Aquilæ.
September	2	G	+ 0.717	σ Octantis and μ Sagittarii.
	3	F	+ 0.689	σ Octantis and μ Herculis.
	5	G	+ 0.637	σ Octantis and μ Herculis.
	7	I	+ 0.826	σ Octantis and ζ Aquilæ.
	9	G	+ 0.758	σ Octantis and μ Sagittarii.
	10	F	+ 0.688	σ Octantis and α Lyræ.
	11	G	+ 0.710	σ Octantis and μ Herculis.
	12	C	+ 0.678	σ Octantis and μ Sagittarii.

TABLE III—Continued.

Separate Determinations of the Azimutbal Errors of the Transit-circle, made in 1874.

Day of Observation.	Observer.	Error of Azimuth.	How determined.
1874.		s	
September 14	F	+ 0.724	σ Octantis and α Lyræ.
16	C	+ 0.527	σ Octantis and ϵ Piscium.
17	B	+ 0.552	σ Octantis and ζ Aquilæ.
18	C	+ 0.678	σ Octantis and β Lyræ.
19	G	+ 0.666	σ Octantis and μ Sagittarii.
21	F	+ 0.728	σ Octantis and α Lyræ.
22	G	+ 0.725	σ Octantis and ζ Aquilæ.
23	C	+ 0.675	σ Octantis and 2 Aquilæ.
24	I	+ 0.836	σ Octantis and ζ Aquilæ.
28	I	+ 0.759	σ Octantis and ζ Aquilæ.
	I	+ 0.502	A Octantis S.P. and δ Aquilæ.
	I	+ 0.670	B Octantis and β Aquarii.
29	C	+ 0.686	A Octantis S.P. and ϵ Aquarii.
	F	+ 0.739	σ Octantis S.P. and α Orionis.
October 1	F	+ 0.699	A Octantis S.P. and ρ Capricorni.
2	I	+ 0.521	A Octantis S.P. and 32 Vulpeculæ.
3	C	+ 0.620	β Hydri and 12 Ceti.
5	F	+ 0.694	B Octantis and ϵ Pegasi.
	F	+ 0.610	C Octantis and η Aquarii.
6	C	+ 0.713	σ Octantis and β Ceti.
	C	+ 0.663	Brisbane 4091 S.P. and β Ceti.
7	G	+ 0.675	σ Octantis and β Ceti.
9	C	+ 0.716	A Octantis S.P. and ρ Capricorni.
	C	+ 0.587	C Octantis and α Aquarii.
10	G	+ 0.654	A Octantis S.P. and ρ Capricorni.
12	I	+ 0.493	A Octantis S.P. and β Aquarii
	I	+ 0.617	C Octantis and α Aquarii.
13	G	+ 0.645	A Octantis S.P. and ρ Capricorni.
14	C	+ 0.634	A Octantis S.P. and ρ Capricorni.
15	G	+ 0.609	A Octantis S.P. and ρ Capricorni.
16	F	+ 0.577	C Octantis and α Aquarii.
18	G	+ 0.609	β Hydri S.P. and β Corvi.
19	I	+ 0.713	C Octantis and β Aquarii.
20	C	+ 0.651	C Octantis and η Aquarii.
22	F	+ 0.589	C Octantis and α Aquarii.

TABLE III.—Continued.

Separate Determinations of the Azimuthal Errors of the Transit-circle, made in 1874.

Day of Observation.		Observer.	Error of Azimuth.	How determined.
1874.			s	
October	23	I	+ 0.764	C Octantis and η Aquarii.
		I	+ 0.617	β Hydri and ι Ceti.
	24	G	+ 0.611	C Octantis and α Aquarii.
	26	B	+ 0.578	C Octantis and ζ Pegasi.
		F	+ 0.696	Z Octantis S.P. and γ^3 Ceti.
	27	G	+ 0.577	C Octantis and α Aquarii.
	28	C	+ 0.577	\circ Octantis and ω Piscium.
	29	I	+ 0.622	C Octantis and α Aquarii.
	30	G	+ 0.629	C Octantis and η Aquarii.
	31	C	+ 0.671	\circ Octantis and ϵ Andromedæ.
November	2	I	+ 0.618	C Octantis and γ Piscium.
		I	+ 0.751	\circ Octantis and ϵ Piscium.
	3	G	+ 0.640	C Octantis and α Aquarii.
	4	C	+ 0.638	\circ Octantis and ω Piscium.
	6	F	+ 0.613	C Octantis and ζ Pegasi.
	11	I	+ 0.651	C Octantis and η Aquarii.
		I	+ 0.799	\circ Octantis and β Ceti.
	12	F	+ 0.571	C Octantis and α Aquarii.
		F	+ 0.507	β Hydri and γ Pegasi.
		G	+ 0.576	Meridian Mark.
	13	G	+ 0.604	C Octantis and α Aquarii.
		G	+ 0.453	Meridian Mark.
		G	+ 0.473	β Hydri and ι Ceti.
		G	+ 0.554	β Hydri S.P. and β Corvi.
		G	+ 0.540	Meridian Mark.
	14	B	+ 0.646	\circ Octantis and ϵ Piscium.
		B	+ 0.541	β Hydri and ϵ Piscium.
	16	I	+ 0.729	\circ Octantis and γ Piscium.
		I	+ 0.635	β Hydri and η Piscium.
	17	F	+ 0.618	\circ Octantis and ι Ceti.
	18	G	+ 0.668	\circ Octantis and β Ceti.
	19	C	+ 0.626	β Hydri and ϵ Piscium.
		C	+ 0.667	\circ Octantis and β Ceti.
	20	G	+ 0.683	\circ Octantis and β Ceti.
	21	B	+ 0.625	\circ Octantis and ϵ Piscium.
		B	+ 0.613	β Hydri and ϵ Piscium.

TABLE III.—Continued.

Separate Determinations of the Azimuthal Errors of the Transit-circle, made in 1874.

Day of Observation.	Observer.	Error of Azimuth.	How determined.
1874.			
November	22	G + 0.611	β Hydri S.P. and α Virginis.
	23	I + 0.898	α Octantis and β Ceti.
		I + 0.687	β Hydri and β Ceti.
	26	I + 0.593	β Hydri and β Ceti.
	27	G + 0.687	α Octantis and β Ceti.
	28	F + 0.578	β Hydri and ω Piscium.
		G + 0.656	β Hydri S.P. and β Corvi.
		F + 0.639	Brisbane 4091 and ϵ Piscium.
	30	C + 0.656	β Hydri and 12 Ceti.
		C + 0.627	Z Octantis S.P. and θ Ceti.
December	2	F + 0.752	Z Octantis S.P. and α Arietis.
		F + 0.493	β Hydri and β Ceti.
	3	I + 0.780	α Octantis and β Ceti.
		I + 0.607	β Hydri and β Ceti.
	4	C + 0.620	α Octantis and θ Ceti.
		C + 0.651	Z Octantis S.P. and β Arietis.
		C + 0.513	β Hydri and θ Ceti.
		G + 0.630	β Hydri S.P. and β Corvi.
	5	G + 0.643	α Octantis and β Ceti.
		G + 0.676	Z Octantis S.P. and β Ceti.
	6	G + 0.625	α Octantis and β Ceti.
		G + 0.643	β Hydri and β Ceti.
		G + 0.736	β Hydri S.P. and β Corvi.
	7	F + 0.554	β Hydri and 12 Ceti.
		G + 0.734	β Hydri S.P. and β Corvi.
		F + 0.703	Z Octantis S.P. and ξ^3 Ceti.
	8	I + 0.566	β Hydri and θ Ceti.
	9	G + 0.415	β Hydri and β Ceti.
		G + 0.590	Z Octantis S.P. and ξ^3 Ceti.
	10	C + 0.624	β Hydri and γ Pegasi.
	11	I + 0.587	β Hydri and β Ceti.
	12	G + 0.512	β Hydri and β Ceti.
		G + 0.640	Z Octantis S.P. and ξ^3 Ceti.
	13	B + 0.615	ρ Octantis S.P. and η Tauri.
	14	F + 0.465	β Hydri and β Ceti.
		G + 0.618	β Hydri S.P. and β Corvi.
		F + 0.636	Z Octantis S.P. and ξ^3 Ceti.

TABLE III.—Continued.

Separate Determinations of the Azimuthal Errors of the Transit-circle, made in 1874.

Day of Observation.	Observer.	Error of Azimuth.	How determined.
1874.			
December 15	G	+ 0.735	Z Octantis S.P. and α Ceti.
16	I	+ 0.587	β Hydri and β Ceti.
	I	+ 0.600	Z Octantis S.P. and δ Ceti.
17	F	+ 0.521	β Hydri and β Ceti.
	F	+ 0.717	Z Octantis S.P. and δ Ceti.
18	G	+ 0.781	β Hydri S.P. and β Corvi.
19	G	+ 0.623	β Hydri and β Ceti.
	G	+ 0.658	Z Octantis S.P. and ξ Ceti.
21	I	+ 0.604	Z Octantis S.P. and δ Ceti.
22	F	+ 0.710	σ Octantis S.P. and γ Canis Majoris.
	F	+ 0.631	A Octantis and δ Cancr.
23	G	+ 0.615	β Hydri and β Ceti.

TABLE IV.

Rates of the Transit-clock used in the Reduction of the Observations during the Year 1874.

Day	Adopted Losing Rate.	Day.	Adopted Losing Rate.	Day.	Adopted Losing Rate.	Day.	Adopted Losing Rate.
	s		s		s		s
Jan. 2	— 0'79	Feb. 25	— 1'11	April 24	— 1'29	June 22	— 1'43
5	— 0'87	27	— 0'97	28	— 1'24	23	— 1'49
7	— 0'84	28	— 0'91	29	— 1'26	24	— 1'47
9	— 0'87	March 2	— 0'99	30	— 1'38	25	— 1'53
12	— 0'73	3	— 1'01	May 1	— 1'54	26	— 1'57
13	— 0'89	7	— 1'11	4	— 1'49	27	— 1'57
15	— 0'76	9	— 1'35	5	— 1'36	29	— 1'71
16	— 1'15	10	— 1'25	6	— 1'26	July 3	— 1'76
17	— 1'11	12	— 1'01	7	— 1'32	4	— 1'68
19	— 0'94	13	— 1'07	8	— 1'41	6	— 1'62
20	— 0'90	16	— 1'10	13	— 1'46	8	— 1'88
21	— 0'78	19	— 0'98	14	— 1'55	9	— 1'73
22	— 0'88	21	— 1'03	15	— 1'60	12	— 1'59
23	— 0'95	23	— 1'12	16	— 1'64	13	— 1'55
24	— 0'96	24	— 1'15	18	— 1'48	16	— 1'46
26	— 0'87	25	— 1'03	19	— 1'69	17	— 1'63
27	— 0'78	26	— 0'95	21	— 1'40	18	— 1'79
28	— 0'82	27	— 0'98	22	— 1'48	20	— 1'57
29	— 0'84	28	— 1'04	27	— 1'67	21	— 1'67
30	— 0'88	29	— 1'11	29	— 1'80	22	— 1'84
31	— 0'93	30	— 1'35			23	— 1'95
		31	— 1'31	June 3	— 1'56	24	— 1'80
Feb. 2	— 0'89	April 1	— 0'90	4	— 1'60	27	— 1'70
3	— 0'83	2	— 1'03	5	— 1'76	28	— 1'60
6	— 1'53	4	— 1'16	8	— 1'44	29	— 1'48
9	— 1'10	7	— 1'35	9	— 1'49	30	— 1'45
11	— 0'83	8	— 1'38	10	— 1'59	31	— 1'60
12	— 0'86	9	— 1'25	11	— 1'53		
13	— 0'78	10	— 1'26	12	— 1'52	Aug. 1	— 1'68
14	— 0'84	11	— 1'16	13	— 1'54	3	— 1'55
17	— 0'85	12	— 1'03	15	— 1'60	4	— 1'48
18	— 0'80	15	— 1'14	16	— 1'51	5	— 1'39
19	— 0'93	20	— 1'21	17	— 1'49	7	— 1'50
20	— 0'92	21	— 1'20	18	— 1'50	8	— 1'61
23	— 0'87	22	— 1'17	19	— 1'58	10	— 1'52
24	— 0'98						

TABLE IV.—Continued.

Rates of the Transit-clock used in the Reduction of the Observations during the Year 1874.

Day.	Adopted Losing Rate.	Day.	Adopted Losing Rate.	Day.	Adopted Losing Rate.	Day.	Adopted Losing Rate.
	s		s		s		s
Aug. 11	— 1'51	Sept. 18	— 2'09	Oct. 27	— 1'32	Nov. 27	— 1'39
12	— 1'53	19	— 2'08	28	— 1'22	28	— 1'31
13	— 1'48	21	— 1'43	29	— 1'38	29	— 1'36
14	— 1'51	24	— 1'54	30	— 1'58	30	— 1'42
15	— 1'61	28	— 1'57	31	— 1'20		
17	— 1'33	29	— 1'48			Dec. 1	— 1'46
19	— 1'35			Nov. 1	— 1'11	2	— 1'33
20	— 1'41	Oct. 1	— 1'49	2	— 1'31	3	— 1'40
21	— 1'49	2	— 1'57	3	— 1'69	4	— 1'39
22	— 1'48	3	— 1'51	4	— 1'64	5	— 1'19
23	— 1'39	5	— 1'44	6	— 1'28	6	— 1'19
24	— 1'55	6	— 1'50	9	— 1'37	7	— 1'13
28	— 1'72	7	— 1'50	10	— 1'54	8	— 1'13
29	— 1'70	9	— 1'50	11	— 1'40	9	— 1'17
30	— 1'60	10	— 1'52	12	— 1'28	10	— 1'10
		11	— 1'68	13	— 1'26	11	— 1'12
Sept. 2	— 1'54	12	— 1'70	14	— 1'25	12	— 1'28
3	— 1'58	13	— 1'67	15	— 1'36	13	— 1'26
4	— 1'39	14	— 1'50	16	— 1'64	14	— 1'32
5	— 1'26	15	— 1'34	17	— 1'62	15	— 1'20
6	— 1'36	16	— 1'62	18	— 1'32	16	— 1'10
7	— 1'39	17	— 1'68	19	— 1'29	17	— 1'26
8	— 1'43	18	— 1'68	20	— 1'13	18	— 1'21
9	— 1'34	19	— 1'65	21	— 1'20	19	— 1'17
10	— 1'28	20	— 1'76	22	— 1'38	20	— 1'20
11	— 1'40	22	— 1'61	23	— 1'31	21	— 1'18
14	— 1'56	23	— 1'52	24	— 1'38	22	— 1'19
16	— 1'40	24	— 1'48	25	— 1'42	23	— 1'21
17	— 1'49	26	— 1'37	26	— 1'34		

TABLE V.

Mean Run of the Microscope-Micrometers of the Transit-circle, or the number of Revolutions corresponding, in the Mean, to an Arc of 5' on the Circle observed in 1874.

Day.	Observer.	Pointer Reading.	Mean Run.	Day.	Observer.	Pointer Reading.	Mean Run.	Day.	Observer.	Pointer Reading.	Mean Run.
		o	r			o	r			o	r
Jan. 2	I	31	4'787	Feb. 11	G	40	4'793	March 27	F	41	4'799
5	I	22	4'786	12	F	36	4'794	30	I	35	4'786
7	F	288	4'790	12	I	36	4'790	31	C	40	4'793
9	I	25	4'788	13	G	37	4'790				
12	F	301	4'792	13	C	37	4'794	April 1	G	35	4'791
13	I	25	4'788	14	G	35	4'790	2	I	34	4'794
14	C	25	4'793	14	F	35	4'796	4	F	46	4'795
15	F	34	4'792	17	G	36	4'790	7	C	32	4'793
16	F	23	4'788	17	C	34	4'789	8	G	36	4'793
17	C	22	4'787	18	G	40	4'792	9	I	35	4'789
19	I	34	4'791	19	G	37	4'794	10	F	41	4'797
20	F	43	4'795	19	F	36	4'795	10	F	36	4'796
21	C	36	4'790	20	G	39	4'795	11	C	41	4'793
22	G	36	4'791	20	I	38	4'793	11	C	33	4'798
22	G	37	4'796	23	F	34	4'798	13	I	35	4'798
23	F	37	4'789	23	F	37	4'794	20	F	37	4'797
24	G	35	4'791	24	G	36	4'785	21	C	37	4'795
26	F	39	4'784	25	I	41	4'791	22	G	34	4'790
27	G	35	4'791	27	F	36	4'789	28	F	33	4'793
28	C	34	4'796	27	F	34	4'794	29	F	39	4'792
29	F	39	4'786	28	G	40	4'786	30	C	32	4'796
30	G	39	4'791	28	G	36	4'791	30	C	39	4'791
31	C	35	4'791								
Feb. 2	F	35	4'781	March 2	C	59	4'797	May 1	I	37	4'797
2	F	34	4'794	3	G	36	4'789	4	I	57	4'811
2	F	35	4'791	9	I	36	4'789	5	C	41	4'795
2	C	37	4'790	10	C	32	4'793	7	G	37	4'795
2	C	40	4'796	12	I	41	4'798	8	I	33	4'793
4	G	36	4'791	13	G	35	4'793	14	I	39	4'800
6	C	34	4'794	14	F	34	4'793	15	G	40	4'794
6	C	34	4'794	16	C	36	4'796	15	G	33	4'791
7	G	32	4'782	19	I	36	4'792	16	F	39	4'795
7	G	37	4'785	23	I	36	4'792	18	I	38	4'798
9	F	40	4'796	24	F	33	4'795	19	C	36	4'796
9	F	34	4'786	25	G	36	4'790	19	C	39	4'792
				26	C	41	4'795	22	F	42	4'796

TABLE V.—Continued.

Mean Run of the Microscope-Micrometers of the Transit-circle, or the number of Revolutions corresponding, in the Mean, to an Arc of 5' on the Circle observed in 1874.

Day.	Observer.	Pointer Reading.	Mean Run.	Day.	Observer.	Pointer Reading.	Mean Run.	Day.	Observer.	Pointer Reading.	Mean Run.
		o	r			o	r			o	r
May 27	G	37	4'797	July 16	I	37	4'802	Sept. 4	C	35	4'798
28	I	34	4'799	17	F	35	4'796	5	G	46	4'798
29	C	34	4'793	18	C	35	4'798	7	I	39	4'805
				18	C	36	4'805	9	G	38	4'795
June 2	G	180	4'792	21	C	36	4'783	10	F	32	4'797
3	G	40	4'790	21	C	36	4'795	14	F	32	4'798
3	G	33	4'796	22	G	39	4'798	17	B	80	4'782
4	F	32	4'795	23	I	36	4'799	18	C	40	4'800
5	I	41	4'794	24	C	36	4'796	19	G	34	4'792
8	C	35	4'778	27	I	34	4'797	21	F	31	4'796
8	C	31	4'791	28	G	38	4'801	23	C	40	4'796
9	F	31	4'792	29	C	35	4'794	24	I	40	4'799
9	F	36	4'793	29	C	38	4'797	28	I	73	4'799
10	G	39	4'794	30	I	32	4'798	29	C	40	4'795
11	I	40	4'800	31	F	35	4'800				
12	F	39	4'795					Oct. 1	F	312	4'796
13	G	34	4'795	Aug. 1	G	40	4'795	1	F	40	4'793
15	C	41	4'795	3	C	38	4'803	2	I	36	4'799
16	G	34	4'797	3	C	38	4'792	3	C	38	4'800
17	I	37	4'799	4	G	39	4'800	3	C	40	4'798
18	C	32	4'799	6	F	39	4'797	5	F	56	4'799
18	C	57	4'793	7	G	39	4'793	5	F	40	4'798
19	F	35	4'798	8	C	—	4'783	6	C	40	4'798
23	G	38	4'792	11	C	40	4'791	6	C	335	4'792
24	C	57	4'798	12	G	33	4'797	7	G	39	4'797
24	C	34	4'800	13	I	36	4'796	9	C	53	4'798
25	I	36	4'800	14	F	34	4'796	9	C	31	4'793
26	F	40	4'791	15	G	38	4'788	10	G	37	4'799
27	G	32	4'795	17	F	36	4'800	12	I	36	4'797
29	I	34	4'795	19	G	43	4'788	13	G	38	4'789
				20	I	36	4'801	14	C	38	4'801
July 3	I	36	4'798	21	F	38	4'797	15	G	31	4'798
6	G	37	4'798	22	G	38	4'792	16	F	33	4'793
8	F	35	4'798					17	B	37	4'796
9	I	33	4'802	Sept. 2	G	56	4'783	19	I	347	4'792
13	I	31	4'798	3	F	40	4'799	20	C	344	4'793

TABLE V.—Continued.

Mean Run of the Microscope-Micrometers of the Transit-circle, or the number of Revolutions corresponding, in the Mean, to an Arc of 5' on the Circle observed in 1874.

Day.	Observer.	Pointer Reading.	Mean Run.	Day.	Observer.	Pointer Reading.	Mean Run.	Day.	Observer.	Pointer Reading.	Mean Run.
		o	r			o	r			o	r
Oct. 22	F	34	4'799	Nov. 16	I	34	4'798	Dec. 7	F	35	4'800
23	I	37	4'799	18	G	333	4'793	7	G	68	4'794
24	G	314	4'793	18	G	34	4'797	8	I	37	4'797
26	B	38	4'787	19	C	288	4'798	9	G	37	4'801
27	G	324	4'794	19	C	36	4'786	11	I	36	4'796
27	G	37	4'793	19	C	36	4'796	12	G	37	4'797
28	C	40	4'795	20	G	32	4'791	12	G	31	4'798
29	I	35	4'800	22	F	306	4'797	14	F	38	4'799
30	G	40	4'800	22	G	68	4'793	14	G	68	4'794
31	C	35	4'793	23	I	36	4'799	15	G	39	4'792
31	C	35	4'792	24	G	353	4'794	16	I	36	4'798
Nov. 2	I	39	4'799	26	I	36	4'795	16	F	346	4'800
3	G	38	4'794	27	G	38	4'793	17	F	32	4'797
4	C	37	4'796	28	F	36	4'783	17	G	31	4'802
4	C	323	4'796	28	F	38	4'798	18	G	68	4'798
6	F	41	4'801	28	G	68	4'794	19	G	36	4'789
9	F	26	4'791	29	G	68	4'799	19	G	31	4'795
10	G	321	4'792	30	C	331	4'792	20	G	345	4'797
10	G	26	4'798	Dec. 2	F	36	4'798	21	I	41	4'803
11	I	34	4'800	2	G	335	4'798	21	G	345	4'799
12	F	204	4'797	3	I	38	4'798	22	F	298	4'797
12	F	34	4'799	4	C	221	4'795	22	F	31	4'798
13	G	221	4'792	4	C	34	4'798	22	G	345	4'795
13	G	33	4'789	5	G	34	4'793	23	G	35	4'795
14	B	32	4'791	6	G	38	4'799	24	I	332	4'799
16	I	353	4'793	7	F	331	4'790				

TABLE VI.

Nadir Points of the Transit-circle, determined from the reflected image of the Wire, 1874.

Day and Hour. 1874.		Observer.	Seconds of observed Nadir Point.	Thermometer.	Day and Hour. 1874.		Observer.	Seconds of observed Nadir Point.	Thermometer.
Jan.	d h		s	°	Feb.	d h		s	°
	2 10	I	34.06	67		17 9	C	45.07	59
	5 13	I	34.86	69		18 12	G	45.40	63
	7 10	F	36.41	68		19 11	G	44.98	57
	9 0	F	36.82	70		19 11	F	45.00	57
	9 12	I	37.21	62		20 9	G	45.02	66
	12 9	F	37.82	66		20 9	I	45.30	66
	13 12	I	38.49	66		23 9	F	44.94	67
	14 12	C	38.80	69		24 11	G	45.33	65
	15 10	F	39.47	63		25 9	I	45.15	70
	16 11	I	39.33	63		27 9	F	45.24	64
	17 12	C	40.13	66		28 9	G	45.05	75
	19 11	I	40.74	61	March	2 9	C	44.70	65
	20 11	F	40.59	67		3 12	G	44.44	60
	21 11	C	40.97	63		9 8	I	40.77	64
	22 12	G	41.33	64		10 11	C	40.33	67
	23 12	F	41.39	66		12 8	I	39.58	64
	24 12	G	41.92	66		13 11	G	39.89	65
	26 12	F	42.25	65		14 11	F	39.87	65
	27 12	G	42.75	68		16 8	C	39.43	64
	28 12	C	42.81	66		19 1	I	39.78	62
	29 12	F	42.92	70		21 11	C	39.74	60
	30 12	G	43.06	66		23 7	I	40.35	70
	31 12	C	43.42	65		24 8	F	40.28	68
Feb.	2 12	F	44.32	62		25 11	G	40.57	67
	3 12	C	43.77	66		26 7	C	39.98	72
	4 12	G	43.90	66		27 12	F	40.30	61
	6 12	C	44.56	62		28 9	G	40.35	66
	7 11	G	44.53	65		30 11	I	40.41	65
	9 12	F	44.48	64		31 12	C	39.99	59
	11 12	G	44.96	64	April	1 11	G	40.35	57
	12 12	I	44.84	69		2 8	I	40.08	61
	13 12	C	45.01	70		4 11	F	39.55	59
	14 11	F	45.02	77		7 12	C	38.08	59
	16 12	I	44.97	69		8 12	G	38.00	62
	17 9	G	45.23	59					

Heavy Rains on March 3 and 5.

TABLE VI.—Continued.

Nadir Points of the Transit-circle, determined from the reflected image of the Wire, 1874.

Day and Hour. 1874.			Observer.	Seconds of observed Nadir Point.	Thermometer.	Day and Hour. 1874.			Observer.	Seconds of observed Nadir Point.	Thermometer.
d	h	m				d	h	m			
July	30	12	I	32'56	51	Sept.	28	7	I	28'94	55
	31	9	F	32'75	47		29	9	C	29'61	57
Aug.	1	8	G	32'53	56	Oct.	1	8	F	29'37	59
	3	9	C	32'28	51		2	9	I	29'07	58
	4	9	G	31'95	56		3	12	C	29'11	54
	6	9	F	32'36	56		5	12	F	29'26	55
	7	8	G	32'08	52		6	9	C	29'28	59
	8	9	C	31'86	52		7	12	G	29'43	57
	11	12	C	31'55	45		9	8	C	29'38	52
	12	8	G	31'28	51		10	12	G	29'30	55
	13	8	I	31'22	54		12	12	I	29'47	54
	14	11	F	31'42	51		13	12	G	29'32	56
	15	8	G	31'60	56		14	10	C	29'00	57
	17	9	F	31'04	54		15	12	G	28'56	51
	19	8	G	31'18	49		16	8	F	28'47	56
	20	12	I	30'99	52		17	9	B	28'82	56
	21	9	F	31'27	65		19	11	I	28'25	58
	22	12	G	31'62	59		20	10	C	28'39	56
Sept.	24	12	I	30'49	58		22	9	F	28'19	59
	1	19	I	30'15	55		23	9	I	27'91	56
	2	10	G	30'80	55		24	12	G	28'45	61
	3	8	F	30'13	56		26	9	B	28'07	65
	4	10	C	30'26	59		26	9	F	28'24	64
	5	11	G	30'18	58		27	12	G	28'09	67
	7	12	I	29'61	54		28	12	C	27'90	57
	9	12	G	29'81	54		29	10	I	27'84	56
	10	12	F	29'78	57		30	12	G	27'98	57
	12	12	C	29'77	56		31	9	C	28'19	60
	14	12	F	29'66	55	Nov.	2	11	I	28'08	55
	17	8	B	29'67	55		3	12	G	28'42	59
	18	12	C	30'22	58		4	10	C	27'99	60
	19	11	G	29'62	60		6	10	F	28'02	59
	21	9	F	29'47	58		9	23	F	27'81	67
	23	9	C	29'56	58		10	11	G	28'00	60
	24	7	I	28'85	59		10	22	S	27'72	66

TABLE VI.—Continued.

Nadir Points of the Transit-circle, determined from the reflected image of the Wire, 1874.

Day and Hour. 1874.		Observer.	Seconds of observed Nadir Point.	Thermometer.	Day and Hour. 1874.		Observer.	Seconds of observed Nadir Point.	Thermometer.
	d h		s	°		d h		s	°
Nov.	11 0	G	27'78	72	Dec.	4 9	C	27'11	59
	11 10	I	27'27	59		5 12	G	27'70	59
	12 8	F	27'55	58		6 12	G	27'63	62
	13 12	G	28'09	58		7 9	F	27'47	65
	14 11	B	27'73	54		8 9	I	27'49	71
	16 10	F	27'83	57		9 11	G	27'42	61
	16 10	I	27'39	56		10 11	C	27'64	64
	17 9	F	27'91	59		11 9	I	27'63	63
	18 10	G	27'78	67		12 14	G	27'74	61
	19 10	C	28'12	74		14 8	F	27'92	65
	20 12	G	28'00	62		15 18	G	28'40	66
	21 13	B	27'39	62		16 12	I	28'73	64
	22 22	G	27'35	80		17 11	F	28'59	60
	23 10	I	27'32	66		19 14	G	29'04	62
	26 12	I	27'01	60		20 23	G	29'05	72
	27 10	G	27'35	58		21 10	I	29'02	62
	28 9	F	27'20	58		22 11	F	29'85	66
	30 12	C	27'41	66		23 15	G	29'97	66
Dec.	2 9	F	26'88	65		24 10	I	30'01	64
	3 9	I	27'04	63					

TABLE VII.

Separate Results of Direct and Reflexion Observations of Stars, 1874,

Day.		Star Observed.	Circle Reading Reflexion.	Circle Reading Direct.
			° ' "	° ' "
November	6	γ Tucanæ	155 7 25.93	25 5 32.52
	9	α^3 Centauri	153 44 0.30	26 28 57.35
	10	α Leonis	226 36 22.10	313 36 35.49
	10	β Centauri	154 17 4.53	25 55 53.67
	10	α^3 Centauri	153 43 59.11	26 28 57.63
	12	β Piscium	217 10 34.99	323 2 17.80
	12	27 Piscium	209 46 57.21	330 25 57.13
	12	μ Phœnicis	167 16 17.21	12 56 39.68
	16	B.A.C. 257	206 0 38.75	334 12 18.33
	16	27 Piscium	209 46 58.78	330 25 59.02
	17	27 Piscium	209 46 58.47	330 25 58.23
	17	α Eridani	156 10 28.52	24 2 28.73
	19	ϵ Piscium	218 58 41.39	321 14 12.67
	19	ω Piscium	220 12 2.43	320 0 53.45
	19	α Eridani	156 10 26.07	24 2 30.60
	27	B.A.C. 275	146 48 41.69	33 24 14.01
	27	B.A.C. 374	212 23 22.43	327 49 37.77
	28	67 Ceti	207 2 5.90	333 10 48.66
	30	* near ϵ Piscium	221 17 41.95	318 55 12.27
	30	α Eridani	156 10 24.46	24 2 33.60
December	4	δ Piscium	220 55 59.06	319 16 56.14
	4	ϵ Piscium	221 14 43.44	318 58 12.37
	4	α Eridani	156 10 23.01	24 2 33.08
	-7	α Eridani	156 10 21.81	24 2 34.20
	7	67 Ceti	207 2 5.80	333 10 48.66

ROYAL OBSERVATORY,
CAPE OF GOOD HOPE.

SEPARATE RESULTS

FOR

MEAN R.A. OF STARS

OBSERVED IN THE YEAR

1874.

Day.	Observer.	h. m. s.	Day.	Observer.	h. m. s.	Day.	Observer.	h. m. s.
α Andromedæ.			θ Octantis.—Continued.			β Hydri.—Continued.		
Oct. 14	C	o 1 52.63	June 27	G	S.P. o 12 57.07	Mar. 30	I	S.P. o 19 6.09
Dec. 7	F	52.61	27	G	57.20	30	C	5.83
Lacaille 9743.			July 6	G	S.P. 60.66	31	C	S.P. 5.52
			6	G	60.33	Apr. 1	G	S.P. 5.33
Oct. 6	C	o 2 26.13	ι Ceti.			1	G	5.66
9	C	26.03				2	I	S.P. 6.04
10	G	25.97	Dec. 10	C	o 13 0.43	7	C	S.P. 5.66
Lacaille 9755.			Lacaille 40.			7	G	5.66
Sept. 29	C	o 4 26.36	Oct. 14	C	o 13 29.75	8	G	S.P. 5.43
Oct. 1	F	25.94	15	G	29.78	8	I	5.75
3	C	26.53	16	F	29.80	9	I	S.P. 5.86
γ Pegasi.			Lacaille 53.			9	I	5.96
Oct. 12	I	o 6 44.90	Oct. 9	C	o 14 47.71	11	C	S.P. 5.22
14	C	44.90	10	G	47.45	13	I	S.P. 6.02
Nov. 4	C	44.97	12	I	47.80	14	C	5.79
12	F	44.90	13	G	47.53	15	C	S.P. 5.60
13	G	44.98	Lacaille 80 (cluster).			15	G	5.55
19	C	44.91	Oct. 6	C	o 18 27.81	20	F	5.38
Dec. 10	C	44.95	9	C	28.03	21	C	S.P. 6.01
Lacaille 32.			15	G	28.17	29	C	5.76
Oct. 5	F	o 10 25.03	16	F	28.47	May 6	C	5.79
9	C	25.29	β Hydri.			7	I	5.63
10	G	24.89	Mar. 19	F	o 19 5.71	Oct. 26	B	5.29
17	B	25.09	19	F	S.P. 6.00	28	C	5.71
θ Octantis.			20	F	5.26	31	C	5.64
June 18	C	S.P. o 12 58.77	21	F	5.56	Nov. 4	C	5.82
18	G	58.43	23	I	S.P. 5.74	12	F	5.58
19	F	S.P. 58.16	24	F	5.44	13	G	5.68
19	G	57.96	24	F	S.P. 5.29	13	G	S.P. 5.62
23	G	S.P. 58.99	25	F	5.56	14	B	5.46
23	G	59.18	25	G	S.P. 5.23	17	F	5.77
24	C	S.P. 59.72	26	C	6.05	18	G	5.75
26	F	S.P. 58.24	26	C	S.P. 5.52	20	G	5.57
26	C	58.19	29	I	5.73	21	B	5.79
						22	G	S.P. 5.95
						27	G	5.81
						28	F	5.55
						28	G	S.P. 5.55
						29	G	S.P. 5.99
						Dec. 3	I	5.76
						4	C	5.54
						4	G	S.P. 5.83

Day.	Observer.	h. m. s.		Day.	Observer.	h. m. s.		Day.	Observer.	h. m. s.		
β Hydri.—Continued.				Lacaille 151.				β Ceti.				
Dec. 5	G	o 19	5'62	Oct. 13	G	o 31	3'84	Mar. 31	C	o 37	15'78	
6	G		5'91	14	C		3'89	Apr. 1	G		15'82	
6	G	S.P.	5'53	15	G		3'95	9	I		15'77	
7	F		5'36	Lacaille 154.				15	G		15'78	
7	G	S.P.	5'75					20	F		15'83	
9	G		5'42					June 11	I		15'79	
12	G		5'56	Oct. 16	F	o 31	15'81	25	I		15'85	
14	F		5'34	22	F		15'69	27	G		15'91	
14	G	S.P.	5'99	24	G		15'95	July 6	G		15'65	
16	I		5'59	ϵ Andromedæ.				Oct. 6	C		15'74	
17	F		5'19					7	G		15'70	
19	G		5'67					10	G		15'81	
21	I	S.P.	5'82	Oct. 31	C	o 31	54'06	Nov. 10	G		15'63	
22	F		5'20	Nov. 4	C		53'95	11	I		15'76	
Lacaille 93.				Lacaille 171.				17	F		15'84	
Oct. 10	G	o 21	0'40	Oct. 27	G	o 33	27'96	18	G		15'79	
13	G		0'62	28	C		27'96	23	I	15'67		
14	C		0'64	29	I		28'33	27	G	15'81		
12 Ceti.				Lacaille 173.				Dec. 2	F		15'84	
Sept. 29	C	o 23	36'48	Oct. 9	C	o 33	43'38	3	I		15'74	
Oct. 5	F		36'46	10	G		43'06	5	G	15'96		
16	F		36'45	26	B		42'75	6	G		15'78	
22	F		36'43	30	G		43'27	9	G		15'98	
23	I		36'43	Lacaille 179.				11	I	15'91		
24	G		36'47					12	G	15'96		
29	I		36'43					14	F	15'90		
Nov. 13	G		36'42	Oct. 13	G	o 35	29'85	16	I		15'80	
17	F		36'44	14	C		30'04	17	F		15'84	
30	C		36'40	15	G		29'77	19	G		15'73	
Dec. 7	F		36'51	Lacaille 188.				22	F		15'79	
Lacaille 139.								23	G		15'69	
Oct. 9	C	o 28	1'94	Oct. 12	I	o 37	4'97	Lacaille 191.				
10	G		1'59	16	F		4'91	Oct. 24	G	o 37	18'79	
				22	F	4'79	27	G	18'98			
								30	G		18'95	
								Lacaille 206.				
								Oct. 15	G	o 39	17'67	
								Nov. 3	G		17'48	
								4	C		17'82	

Day.	Observer.	h. m. s.	Day.	Observer.	h. m. s.	Day.	Observer.	h. m. s.
Lacaille 209.			Lacaille 263.			73 Piscium.		
Oct. 28	C	o 39 28'08	Oct. 26	B	o 50 34'75	Nov. 19	C	o 58 20'86
31	C	28'10	30	G	34'83	Lacaille 314.		
Nov. 2	I	28'18	31	C	34'42	Oct. 24	G	1 o 59'21
Lacaille 211.			Nov. 2	I	35'03	26	B	59'10
Lacaille 212.			Lacaille 272.			27	G	59'05
Oct. 9	C	o 39 34'82	Oct. 13	G	o 52 59'63	28	C	59'47
13	G	34'92	15	G	59'65	Lacaille 315.		
14	C	34'94	28	C	59'77	Oct. 13	G	1 1 15'69
B.A.C. 221.			B.A.C. 274.			14	C	15'79
Nov. 19	C	o 41 46'52	Dec. 17	F	o 53 17'98	15	G	15'53
Lacaille 244.			ε Piscium.			16	F	15'52
Oct. 9	C	o 46 11'07	Oct. 9	C	o 56 24'32	30	G	15'57
13	G	11'21	Nov. 12	F	24'19	31	C	15'67
14	C	11'39	23	I	24'29	β Andromedæ.		
Lacaille 250.			28	F	24'26	Nov. 19	C	1 2 41'04
Oct. 10	G	o 47 36'44	Dec. 2	F	24'27	Lacaille 332.		
15	G	36'61	3	I	24'34	Oct. 15	G	1 6 17'73
16	F	36'55	11	I	24'24	16	F	17'91
* N.P.D. 160° 11'.			Lacaille 292.			22	F	18'01
Oct. 10	G	o 47 40'52	Oct. 22	F	o 56 46'00	ζ ¹ Piscium.		
15	G	40'56	24	G	45'85	Dec. 3	I	1 7 8'83
16	F	40'58	27	G	45'89	Lacaille 345.		
Lacaille 258.			Lacaille 299.			Oct. 24	G	1 8 40'79
Oct. 14	C	o 49 38'50	Oct. 31	C	o 57 17'34	27	G	40'80
22	F	38'49	Nov. 2	I	17'46	28	C	41 13
24	G	38'38	3	G	17'45	Lacaille 349.		
Lacaille 262.			Lacaille 298.			Oct. 14	C	1 9 19'15
Oct. 27	G	o 50 17'42	Oct. 28	C	o 57 53'37	29	I	19'53
28	C	17'27	29	I	53'27	30	G	19'07
29	I	17'79	30	G	52'81			

Day.	Observer.	h. m. s.	Day.	Observer.	h. m. s.	Day.	Observer.	h. m. s.
Lacaille 353.			Lacaille 383.			Lacaille 421.		
Oct. 31	C	1 10 42'55	Oct. 16	F	1 15 45'58	Nov. 17	F	1 20 42'29
Nov. 2	I	42'56	22	F	45'63	19	C	42'52
3	G	42'54	23	I	45'75	20	G	42'22
Lacaille 356.			Lacaille 393.			Lacaille 409.		
Oct. 16	F	1 11 29'41	Oct. 26	B	1 16 53'28	Oct. 15	G	1 20 43'76
22	F	29'52	29	I	53'92	22	F	43'62
31	C	29'65	Nov. 3	G	53'65	Nov. 3	G	43'74
Lacaille 359.			4	C	53'62	Lacaille 443.		
Nov. 4	C	1 12 10'19	13	G	53'85	Oct. 22	F	1 24 22'16
11	I	10'17	Lacaille 391.			23	I	22'36
12	F	10'10	Nov. 12	F	1 17 35'57	26	B	21'77
Lacaille 361.			17	F	35'51	27	G	22'11
Nov. 13	G	1 12 41'12	19	C	35'98	28	C	22'18
14	B	40'76	θ Ceti.			η Piscium.		
16	I	41'09	Oct. 14	C	1 17 43'51	Oct. 16	F	1 24 44'56
17	F	40'94	15	G	43'49	18	G	44'70
Lacaille 363.			Nov. 27	G	43'56	29	I	44'55
Nov. 18	G	1 13 6'73	30	C	43'67	30	G	44'51
19	C	7'07	Dec. 4	C	43'52	Nov. 12	F	44'56
20	G	6'74	8	I	43'65	16	I	44'54
Lacaille 366.			11	I	43'56	18	G	44'57
Oct. 27	G	1 13 33'44	Lacaille 399.			27	G	44'60
28	C	33'35	Oct. 27	G	1 18 10'27	Dec. 8	I	44'61
30	G	33'14	30	G	10'25	11	I	44'73
Lacaille 380.			Nov. 2	I	10'39	α Eridani.		
Nov. 21	B	1 15 13'66	Lacaille 401.			Dec. 3	I	1 33 1'23
23	I	13'45	Oct. 28	C	1 18 53'24	Lacaille 497.		
25	S	13'54	Nov. 16	I	53'36	Oct. 22	F	1 34 18'36
28	F	13'16	18	G	53'32	23	I	18'34
Dec. 3	I	13'48	Lacaille 417.			27	G	18'24
			Oct. 31	C	1 20 37'53			
			Nov. 4	C	37'53			
			13	G	37'60			

Day.	Observer.	h. m. s.	Day.	Observer.	h. m. s.	Day.	Observer.	h. m. s.
Lacaille 499.			Lacaille 577.			Lacaille 642.		
Oct. 28	C	1 34 41'46	Oct. 23	I	1 49 23'80	Oct. 27	G	2 1 14'18
30	G	41'10	27	G	23'54	28	C	14'46
31	C	41'06	Nov. 2	I	23'59	30	G	14'23
ν Piscium.			Lacaille 594.			Lacaille 665.		
Oct. 13	G	1 34 52'48	Oct. 30	G	1 51 44'67	Nov. 4	C	2 3 38'28
18	G	52'60	Nov. 4	C	44'87	11	I	38'38
Dec. 8	I	52'43	12	F	44'48	13	G	38'31
16	I	52'58	B.A.C. 609.			Lacaille 664.		
ο Piscium.			Oct. 24	G	1 52 41'29	Oct. 29	I	2 3 50'86
Dec. 3	I	1 38 44'49	Lacaille 601.			Nov. 12	F	50'83
Lacaille 546.			Oct. 28	C	1 52 52'82	16	I	50'71
Oct. 23	I	1 43 7'78	31	C	52'54	Lacaille 676.		
26	B	7'24	Nov. 3	G	52'50	Oct. 30	G	2 6 42'95
27	G	7'76	Lacaille 616.			31	C	43'02
28	C	8'07	Oct. 27	G	1 56 22'89	Nov. 3	G	43'07
Lacaille 567.			29	I	23'09	Lacaille 691.		
Oct. 29	I	1 47 1'84	30	G	22'86	Oct. 29	I	2 9 44'90
30	G	1'39	α Arietis.			Nov. 11	I	44'49
31	C	1'50	Mar. 26	C	2 0 4'36	12	F	44'62
β Arietis.			June 3	G	4'42	Lacaille 698.		
Nov. 12	F	1 47 40'86	Oct. 22	F	4'41	Nov. 4	C	2 9 50'63
Dec. 3	I	40'88	23	I	4'44	13	G	50'38
4	C	40'93	Nov. 4	C	4'39	17	F	50'00
Lacaille 581.			17	F	4'39	67 Ceti.		
Nov. 3	G	1 48 26'62	23	I	4'39	July 16	I	2 10 41'88
4	C	26'89	Dec. 2	F	4'47	22	G	41'86
11	I	26'98	8	I	4'27	23	I	42'04
			Lacaille 643.			Oct. 22	F	41'89
			Oct. 26	B	2 0 14'28	27	G	41'97
			31	C	14'20	30	G	41'99
			Nov. 2	I	14'28	Nov. 23	I	41'89
			3	G	14'49			

Day.	Observer.	h. m. s.	Day.	Observer.	h. m. s.	Day.	Observer.	h. m. s.
67 Ceti.—Continued.			Lacaille 774.			ν Ceti.		
Dec. 11	I	2 10 41'79	Nov. 19	C	2 22 8'14	Oct. 31	C	2 29 15'69
14	F	41'93	21	B	7'63			
16	I	42'05	23	I	7'95			
17	F	41'91	28	F	7'53	Lacaille 836.		
Lacaille 701.			Lacaille 769.			Nov. 13	G	2 32 16'17
Oct. 31	C	2 11 36'42	Nov. 13	G	2 22 50'61	17	F	15'74
Nov. 16	I	36'86	16	I	50'61	19	C	16'23
18	G	36'57	17	F	50'52	30	C	16'01
Lacaille 706.			Lacaille 777.			Lacaille 839.		
Nov. 3	G	2 12 51'06	Oct. 30	G	2 23 41'50	Nov. 4	C	2 32 46'63
19	C	51'31	Nov. 3	G	41'33	28	F	46'46
20	G	51'15	18	G	40'98	δ Ceti.		
Lacaille 714.			Lacaille 778.			Oct. 31	C	2 33 1'56
Nov. 4	C	2 13 33'66	Nov. 4	C	2 24 14'33	Lacaille 856.		
12	F	33'42	12	F	14'51	Dec. 3	I	2 33 52'04
13	G	33'69	Dec. 3	I	14'27	4	C	52'10
Lacaille 736.			Lacaille 790.			5	G	51'80
Oct. 29	I	2 17 22'14	Nov. 19	C	2 25 53'76	Lacaille 854.		
30	G	21'65	28	F	53'36	Nov. 11	I	2 35 49'13
31	C	21'61	30	C	53'72	12	F	49'39
Lacaille 747.			29 Arietis.			18	G	49'21
Nov. 4	C	2 19 30'82	Oct. 24	G	2 26 0'15	γ ^s Ceti.		
11	I	30'77	Lacaille 800.			Jan. 7	F	2 36 46'30
12	F	30'81	Nov. 4	C	2 27 50'09	July 17	G	46'37
ξ ^s Ceti.			11	I	50'05	Aug. 1	G	46'41
Oct. 29	I	2 21 27'61	13	G	50'17	Oct. 27	G	46'18
Nov. 2	I	27'58	Lacaille 807.			31	C	46'28
Dec. 7	F	27'70	Nov. 16	I	2 29 0'96	Nov. 2	I	46'37
9	G	27'65	18	G	0'41	3	G	46'46
12	G	27'63	23	I	0'62			
14	F	27'64						
19	G	27'74						

Day.	Observer.	h. m. s.	Day.	Observer.	h. m. s.	Day.	Observer.	h. m. s.
Lacaille 867.			Lacaille 893.			Lacaille 952.		
Nov. 13	G	2 37 22.71	Nov. 28	F	2 41 14.61	Nov. 17	F	2 48 54.22
Dec. 2	F	22.39	Dec. 2	F	14.77	19	C	54.56
4	C	22.49	4	C	14.99	28	F	54.15
Lacaille 866.			Lacaille 898.			Lacaille 943.		
Nov. 17	F	2 37 27.80	Dec. 7	F	2 41 48.99	Nov. 11	I	2 49 3.23
19	C	28.15	8	I	49.15	12	F	3.28
23	I	28.09	9	G	49.25	13	G	3.39
Lacaille 877.			Lacaille 901.			Lacaille 948.		
Dec. 7	F	2 37 36.16	Nov. 30	C	2 41 49.76	Jan. 7	F	2 50 41.63
8	I	36.51	Dec. 5	G	49.38	Nov. 3	G	41.77
12	G	36.21	6	G	49.75	Dec. 5	G	41.79
Lacaille 871.			π Arietis.			Lacaille 954.		
Dec. 5	G	2 37 39.46	Nov. 21	F	2 42 15.75	Nov. 18	G	2 51 41.07
6	G	39.42	Lacaille 907.			23	I	40.79
9	G	39.55	Nov. 17	F	2 43 36.44	30	C	40.92
Lacaille 880.			19	C	36.66	Lacaille 957.		
Dec. 11	I	2 39 0.90	23	I	36.50	Dec. 2	F	2 51 57.36
16	I	0.72	σ Arietis.			3	I	57.66
19	G	0.47	Nov. 4	C	2 44 32.24	4	C	57.79
Lacaille 882.			Dec. 19	G	32.42	Lacaille 970.		
Dec. 10	C	2 40 25.61	Lacaille 916.			Jan. 7	F	2 55 34.13
14	F	25.45	Jan. 7	F	2 44 39.90	Nov. 18	G	34.31
17	F	25.51	Nov. 13	G	40.38	Dec. 4	C	34.24
Lacaille 904.			18	G	39.96	α Ceti.		
Nov. 18	G	2 40 57.66	ρ^3 Arietis.			Mar. 26	C	2 55 41.71
Dec. 3	I	57.85	Nov. 21	F	2 48 43.83	May 27	G	41.57
12	G	57.59				June 16	G	41.67
						July 16	I	41.64
						17	G	41.63
						23	I	41.77

Day.	Observer.	h. m. s.	Day.	Observer.	h. m. s.	Day.	Observer.	h. m. s.
α Ceti.—Continued.			δ Arietis.			Lacaille 1035.		
Nov. 4	C	2 55 41.68	Jan. 15	F	3 4 25.65	Jan. 7	F	3 6 50.95
11	I	41.61	Nov. 3	G	25.72	15	F	51.18
12	F	41.67	11	I	25.52	Dec. 5	G	51.03
16	I	41.52	13	G	25.51	Lacaille 1054.		
17	F	41.61	Lacaille 1031.			Nov. 16	I	3 9 1.27
28	F	41.64	Oct. 26	F	3 5 17.56	30	C	1.32
Dec. 5	G	41.54	Nov. 30	C	18.26	Dec. 3	I	1.19
6	G	41.71	Dec. 15	G	17.68	Lacaille 1075.		
7	F	41.60	Lacaille 1047.			Dec. 7	F	3 11 20.95
8	I	41.58	Dec. 7	F	3 5 51.06	9	G	20.68
9	G	41.50	8	I	51.51	12	G	21.11
10	C	41.64	13	B	51.40	Lacaille 1066.		
11	I	41.58	16	I	51.33	Nov. 18	G	3 11 57.85
12	G	41.59	Lacaille 1043.			Dec. 5	G	57.59
14	F	41.62	Dec. 11	I	3 5 52.03	6	G	57.90
15	G	41.64	12	G	51.75	Lacaille 1085.		
16	I	41.53	17	F	51.37	Nov. 21	B	3 12 50.75
17	F	41.64	Lacaille 1022.			Dec. 10	C	51.10
19	G	41.50	Nov. 28	F	3 5 54.41	11	I	50.91
Lacaille 997.			Dec. 14	F	54.53	15	G	50.60
Nov. 19	C	3. 0 51.16	21	I	54.58	16	I	51.23
30	C	51.16	Lacaille 1046.			Lacaille 1069.		
Dec. 2	F	50.85	Oct. 26	F	3 6 39.23	Jan. 7	F	3 13 10.91
κ Persei.			Nov. 18	G	39.21	Dec. 8	I	11.04
Dec. 12	G	3 1 0.30	19	C	39.71	14	F	11.06
Lacaille 994.			Dec. 2	F	39.38	Lacaille 1082.		
Jan. 7	F	3 1 48.74	9	G	39.32	Nov. 16	I	3 14 18.21
Nov. 16	I	49.04	Lacaille 1025.			30	C	18.23
18	G	48.66	Dec. 4	C	3 6 43.04	Dec. 4	C	18.15
Lacaille 1001.			6	G	42.95	17	F	17.80
Dec. 3	I	3 2 0.51	19	G	42.99			
5	G	0.36						
6	G	0.62						

Day.	Observer.	h. m. s.	Day.	Observer.	h. m. s.	Day.	Observer.	h. m. s.
r ³ Arietis.			Lacaille 1126.			Lacaille 1184.		
Nov. 22	F	3 15 30.39	Jan. 7	F	3 20 6.23	Dec. 3	I	3 32 1.30
Lacaille 1092.			Nov. 21	B	6.22	4	C	1.07
Jan. 15	F	3 16 33.56	30	C	6.87	5	G	0.99
Dec. 3	I	33.73	Dec. 5	G	6.21	Lacaille 1187.		
6	G	33.61	Lacaille 1848.			Dec. 8	I	3 32 55.60
Lacaille 1094.			Aug. 8	C	S.P. 3 20 27.69	11	I	55.60
Dec. 7	F	3 16 39.14	11	C	S.P. 27.35	12	G	55.57
9	G	39.40	Lacaille 1132.			Lacaille 1188.		
12	G	39.42	Nov. 19	C	3 23 30.95	Dec. 6	G	3 32 60.10
Lacaille 1109.			28	F	30.71	7	F	59.89
Dec. 15	G	3 16 58.30	Dec. 3	I	30.81	9	G	59.84
16	I	58.83	Lacaille 1139.			Lacaille 1192.		
19	G	58.42	Jan. 16	I	3 25 2.26	Jan. 7	F	3 35 11.82
Lacaille 1097.			Nov. 16	I	1.71	Nov. 18	G	12.25
Nov. 17	F	3 17 22.59	17	F	1.79	27	G	12.10
18	G	22.63	Lacaille 1143.			Lacaille 1218.		
19	C	22.81	Jan. 7	F	3 27 10.93	Nov. 30	C	3 36 18.35
Lacaille 1098.			13	I	11.09	Dec. 4	C	18.23
Nov. 27	G	3 17 30.39	15	F	10.64	5	G	18.02
Dec. 2	F	30.38	Lacaille 1164.			δ Eridani.		
14	F	30.49	Nov. 18	G	3 29 34.35	Dec. 6	G	3 37 12.78
17	F	30.36	27	G	34.53	15	G	12.75
Lacaille 1118.			28	F	34.32	16	I	12.63
Jan. 15	F	3 20 5.83	Lacaille 1178.			17 Tauri.		
Dec. 4	C	6.00	Nov. 19	C	3 31 34.66	Dec. 3	I	3 37 23.66
6	G	5.83	23	I	34.49			
			30	C	34.61			

Day.	Observer.	h. m. s.	Day.	Observer.	h. m. s.	Day.	Observer.	h. m. s.
η Tauri.			Lacaille 1277.			γ ¹ Eridani.—Continued.]		
Jan. 7	F	3 39 59.74	Dec. 7	F	3 45 14.35	Jan. 16	I	3 52 9.13
Nov. 23	I	59.92	8	I	14.63	June 3	G	9.02
Dec. 7	F	59.75	9	G	14.52	Nov. 17	F	9.01
17	F	59.82	Lacaille 1298.			28	F	9.02
Lacaille 1245.			Jan. 13	I	3 46 4.40	Dec. 2	F	8.94
Jan. 15	F	3 40 22.99	14	C	4.02	6	G	9.08
Nov. 18	G	23.04	15	F	3.93	15	G	9.04
21	B	23.14	Lacaille 1414.			16	I	8.97
27	G	22.90	Aug. 14	F	S.P. 3 46 49.78	Lacaille 1321.		
Lacaille 1243.			15	G	S.P. 50.02	Jan. 7	F	3 53 15.51
Jan. 5	I	3 40 55.92	Lacaille 1301.			12	F	15.41
9	I	55.99	Nov. 30	C	3 47 43.81	15	F	15.47
13	I	56.19	Dec. 9	G	43.57	36 Tauri.		
Lacaille 1253.			11	I	43.68	Oct. 26	F	3 56 49.56
Jan. 16	I	3 42 37.66	Lacaille 1322.			Lacaille 1352.		
Nov. 30	C	37.76	Jan. 23	F	3 49 12.99	Jan. 7	F	3 57 52.29
Dec. 3	I	37.60	Dec. 5	G	12.68	14	C	52.15
Lacaille 1283.			7	F	12.52	16	I	52.68
Nov. 18	G	3 44 48.90	33 Tauri.			Lacaille 1362.		
27	G	49.09	Nov. 22	F	3 49 35.75	Jan. 13	I	3 58 17.92
Dec. 4	C	48.99	Lacaille 1308.			15	F	17.18
Lacaille 1285.			Nov. 18	G	3 49 36.11	17	C	17.22
Nov. 18	G	3 45 3.84	Dec. 3	I	36.48	Lacaille 1347.		
27	G	4.23	4	C	36.35	Jan. 5	I	3 58 18.62
Dec. 4	C	3.70	γ ¹ Eridani.			9	I	18.31
Lacaille 1295.			Jan. 5	I	3 52 8.97	20	F	18.35
Jan. 19	I	3 45 11.70	9	I	8.99	Lacaille 1380.		
Dec. 5	G	11.25	13	I	9.07	Nov. 14	B	4 1 28.63
6	G	11.69				28	F	28.61
						30	C	28.89
						Dec. 3	I	29.21

Day.	Observer.	h. m. s.	Day.	Observer.	h. m. s.	Day.	Observer.	h. m. s.
Lacaille 1383.			γ Tauri.			Lacaille 1481.		
Dec. 5	G	4 2 33'41	Dec. 3	I	4 12 37'43	Jan. 13	IJ	4 18 13'95
6	G	33'58	14	F	37'40	Dec. 6	G	13'22
7	F	33'33				7	F	12'90
Lacaille 1375.			Lacaille 1442.			Lacaille 1487.		
Jan. 7	F	4 3 5'96	Jan. 14	C	4 13 53'63	Jan. 15	F	4 20 2'66
19	I	6'17	15	F	53'57	Dec. 5	G	2'48
Nov. 27	G	6'12	16	I	53'93	6	G	2'79
37 Eridani.			Lacaille 1453.			Lacaille 1486.		
Dec. 21	I	4 4 13'57	Jan. 17	C	4 14 50'24	Nov. 18	G	4 20 7'66
			19	I	50'28	27	G	7'32
			20	F	50'31	Dec. 4	C	7'56
μ Persei.			χ^1 Tauri.			Lacaille 1482.		
Dec. 16	I	4 5 39'25	Oct. 26	F	4 14 54'96	Jan. 23	F	4 20 15'34
ϕ^1 Eridani.			Lacaille 1432.			27	G	15'55
Jan. 15	F	4 5 42'95	Jan. 7	F	4 15 19'54	29	F	15'16
Nov. 18	G	42'95	9	I	19'78	ϵ Tauri.		
Dec. 6	G	42'83	12	F	19'42	Jan. 7	F	4 21 15'73
9	G	42'84				16	I	15'69
Lacaille 1405.			Lacaille 1445.			24	G	15'63
Jan. 9	I	4 6 23'40	Jan. 23	F	4 15 47'71	30	G	15'63
14	C	23'04	Nov. 18	G	47'85	Feb. 2	F	15'63
16	I	23'34	27	G	47'48	Dec. 14	F	15'55
Lacaille 1401.			Lacaille 1443.			Lacaille 1496.		
Jan. 17	C	4 7 12'75	Jan. 5	I	4 16 15'99	Jan. 9	I	4 23 20'85
Nov. 27	G	12'52	21	C	16'09	12	F	20'37
30	C	12'72	22	G	16'12	14	C	20'51
Dec. 5	G	12'82	Lacaille 1460.			Lacaille 1511.		
Lacaille 1421.			Nov. 14	B	4 17 11'96	Jan. 17	C	4 23 28'25
Jan. 5	I	4 9 39'17	Dec. 3	I	12'15	19	I	28'59
12	F	38'73	4	C	11'51	22	G	28'35
13	I	39'70	5	G	12'05			

Day.	Observer.	h. m. s.	Day.	Observer.	h. m. s.	Day.	Observer.	h. m. s.
Lacaille 1524.			Lacaille 1545.			Lacaille 1647.		
Jan. 21	C	4 24 49'15	Jan. 22	G	4 30 5'03	Jan. 16	I	4 45 33'61
23	F	49'26	23	F	4'75	20	F	33'12
27	G	49'37	27	G	5'07	21	C	33'18
Lacaille 1532.			Lacaille 1608.			Lacaille 1660.		
Jan. 13	I	4 26 22'96	Jan. 13	I	4 36 33'27	Jan. 19	I	4 46 60'03
15	F	22'37	14	C	32'71	22	G	59'88
20	F	22'53	15	F	32'65	23	F	59'87
α Tauri.			Lacaille 1606.			Lacaille 1672.		
Jan. 5	I	4 28 41'50	Jan. 16	I	4 36 36'43	Jan. 29	F	4 48 25'50
9	I	41'60	17	C	36'28	Feb. 7	G	26'30
24	G	41'52	20	F	36'49	11	G	26'12
May 19	C	41'61	Lacaille 1607.			B.A.C. 1518.		
July 8	G	41'45	Jan. 19	I	4 38 36'06	Nov. 23	I	4 48 35'28
Aug. 10	I	41'36	21	C	35'88	ι Aurigæ.		
13	I	41'34	22	G	35'88	Feb. 3	C	4 48 47'31
Nov. 27	G	41'64	μ Eridani.			Lacaille 1661.		
28	F	41'54	Jan. 28	C	4 39 12'29	Jan. 5	I	4 49 57'85
30	C	41'48	Nov. 30	C	12'01	27	G	57'57
Dec. 3	I	41'58	Dec. 5	G	12'08	κ Tauri.		
4	C	41'50	Lacaille 1614.			Nov. 23	I	4 50 26'89
5	G	41'55	Lacaille 1654.			Lacaille 1687.		
6	G	41'28	Jan. 5	I	4 42 27'20	Jan. 20	F	4 51 36'76
7	F	41'52	14	C	27'26	23	F	36'80
Lacaille 1552.			17	C	27'15	Feb. 4	G	36'89
Jan. 29	F	4 28 50'58	Lacaille 1692.			Jan. 15	F	4 51 37'35
30	G	50'63	Jan. 9	I	4 44 20'10	16	I	37'89
Feb. 2	F	50'75	13	I	20'25	17	C	37'53
Lacaille 1548.			15	F	19'70			
Jan. 12	F	4 29 38'46						
Feb. 3	C	38'95						
4	G	38'80						

Day.	Observer.	h. m. s.	Day.	Observer.	h. m. s.	Day.	Observer.	h. m. s.
Lacaille 1679.			α Leporis.			Lacaille 1776.		
Jan. 9	I	4 52 49.35	Jan. 15	F	5 0 7.55	Feb. 4	G	5 6 10.69
13	I	49.49	16	I	7.65	6	C	10.81
14	C	49.10	23	F	7.62	7	G	10.56
Lacaille 1701.			29	F	7.64	α Aurigæ.		
Jan. 29	F	4 53 19.04	Aug. 20	I	7.54	Dec. 14	F	5 7 23.01
30	G	19.14	Dec. 5	G	7.49	β Orionis.		
Feb. 2	F	19.16	10	C	7.59	Jan. 13	I	5 8 28.72
Lacaille { 1721. }			Lacaille 1740.			14	C	28.94
Jan. 19	I	4 55 12.73	Jan. 30	G	5 0 22.01	16	I	28.99
21	C	12.37	31	C	22.13	27	G	28.89
22	G	12.60	Feb. 2	F	21.70	29	F	29.02
Lacaille 1726.			Lacaille 1758.			30	G	29.03
Jan. 24	G	4 55 44.79	Feb. 3	C	5 1 58.33	May 15	G	28.95
27	G	44.98	4	G	58.03	27	C	28.99
28	C	44.82	9	F	58.15	28	I	29.04
Lacaille 1714.			Lacaille 1755.			June 8	C	28.98
Jan. 23	F	4 56 28.43	Jan. 13	I	5 2 26.29	23	G	28.79
Feb. 3	C	28.41	21	C	25.62	July 17	G	28.93
4	G	28.43	22	G	25.74	Aug. 7	G	28.88
Lacaille 1733.			Lacaille 1778.			12	G	29.00
Feb. 7	G	4 58 15.38	Jan. 15	F	5 4 21.13	19	G	28.83
9	F	15.01	19	I	21.35	20	I	28.97
11	G	15.26	20	F	21.02	Dec. 5	G	29.02
Lacaille 1725.			Lacaille 1788.			Lacaille 1808.		
Jan. 5	I	4 59 53.91	Jan. 23	F	5 4 27.62	Jan. 9	I	5 8 42.37
9	I	54.17	27	G	27.78	17	C	41.73
17	C	53.77	28	C	27.51	31	C	42.12
Lacaille 1777.			Lacaille 1777.			Lacaille 1804.		
Jan. 29	F	5 5 27.70	Jan. 29	F	5 5 27.70	Feb. 3	C	5 8 46.13
30	G	27.64	30	G	27.64	9	F	45.93
Feb. 2	F	27.63	Feb. 2	F	27.63	11	G	46.02

Day.	Observer.	h. m. s.	Day.	Observer.	h. m. s.	Day.	Observer.	h. m. s.
Lacaille 1807.			β Tauri.—Continued.			Lacaille 1903.		
Jan. 15	F	5 11 32'18	Feb. 7	G	5 18 19'67	Jan. 19	I	5 24 17'03
23	F	32'26	11	G	19'65	30	G	17'17
24	G	32'34	12	I	19'92	31	C	16'97
Lac. 1831 (Preceding Star).			14	F	19'59	Feb. 3	C	17'06
Jan. 28			17	C	19'53	Lacaille 1910.		
C		5 12 16'56	July 8	G	19'57	Jan. 24	G	5 25 1'90
Lac. 1831 (close double observed as one mass).			22	G	19'51	27	G	2'09
Jan. 19			Aug. 20	G	19'57	29	F	1'66
I		5 12 17'24	Lacaille 1878.			δ Orionis.		
27	G	17'30	Jan. 13	I	5 18 22'48	Jan. 5	I	5 25 34'16
Lacaille 1818.			15	F	22'15	7	F	34'13
Jan. 22	G	5 12 56'97	16	I	22'51	9	I	34'12
29	F	56'40	21	C	22'34	15	F	34'22
30	G	56'74	Lacaille 1851.			17	C	34'18
B.A.C. 1648.			Jan. 5	I	5 18 58'27	22	G	34'15
Dec. 21	I	5 13 4'77	23	F	58'20	23	F	34'23
Lacaille 1828.			24	G	58'25	Feb. 2	F	34'17
Jan. 5	I	5 13 51'44	Lacaille 1880.			9	F	34'11
12	F	51'41	Jan. 27	G	5 19 16'41	11	G	34'17
14	C	51'39	29	F	16'15	12	I	34'08
Lacaille 1861.			Feb. 23	F	16'44	18	G	34'06
Jan. 2	I	5 18 12'99	Lacaille 1869.			19	F	34'15
7	F	12'74	Jan. 28	C	5 19 48'22	23	F	34'25
9	I	12'73	30	G	48'35	May 13	C	34'21
β Tauri.			31	C	48'34	21	I	34'26
Jan. 14	C	5 18 19'64	Feb. 2	F	48'03	27	C	34'20
17	C	19'77	Lacaille 1900.			28	I	34'21
Feb. 3	C	19'70	Feb. 4	G	5 21 57'17	29	C	34'19
4	G	19'69	6	C	57'46	June 22	C	34'24
6	C	19'77	7	G	57'36	July 22	G	34'18
						Aug. 20	G	34'18
						Lacaille 1925.		
						Jan. 12	F	5 25 40'08
						13	I	40'52
						21	C	40'22

Separate Results for Mean R.A. of Stars observed

Day.	Observer.	h. m. s.	Day.	Observer.	h. m. s.	Day.	Observer.	h. m. s.
α Leporis.			Lacaille 1963.			α Columbae.—Continued.		
Jan. 17	C	5 27 10.29	Feb. 17	F	5 29 41.11	May 19	C	5 35 5.19
May 13	C	10.43	18	G	41.15	27	C	5.18
19	C	10.42	19	F	40.81	28	I	5.01
27	C	10.39	ϵ Orionis.			June 22	C	5.24
29	C	10.38				July 8	G	5.16
June 22	C	10.32						
Lacaille 1920.			Jan. 13	I	5 29 49.27	Lacaille 1971.		
			14	C	49.17			
			17	C	49.18	Jan. 7	F	5 36 29.50
Jan. 28	C	5 27 39.94	22	G	49.18	13	I	29.98
Feb. 4	G	39.85	27	G	49.31	14	C	29.90
7	G	39.84	May 13	C	49.22			
			19	C	49.17	Lacaille 1985.		
			27	C	49.23			
			29	C	49.26	Jan. 12	F	5 36 55.00
Lacaille 1950.			June 22	C	49.24	17	C	54.85
Feb. 13	C	5 27 57.36	July 17	G	49.19	19	I	55.16
14	F	56.85	22	G	49.26			
17	F	57.26	Aug. 20	G	49.25			
			Sept. 2	G	49.10			
B.A.C. 1746.			Dec. 17	F	49.15	Lacaille 2016.		
Dec. 21	I	5 28 1.20	Lacaille 1932.			Jan. 23	F	5 37 53.48
			Jan. 9	I	5 31 25.89	24	G	53.28
Lacaille 1917.			12	F	25.50	27	G	53.81
			16	I	26.08			
Jan. 23	F	5 28 22.80	Lacaille 1958.			Lacaille 2007 (nebula).		
Feb. 2	F	22.54	Jan. 5	I	5 33 40.07	Jan. 30	G	5 39 35.64
9	F	22.70	22	G	40.12	31	C	35.30
			23	F	40.08	Feb. 2	F	34.50
Lacaille 1931.								
Jan. 29	F	5 29 21.32	α Columbae.			Lacaille 2039.		
Feb. 11	G	21.62	Jan. 28	C	5 35 4.99	Jan. 9	F	5 40 5.20
12	I	21.66	31	C	5.19	16	I	5.41
			Feb. 4	G	5.15	28	C	5.62
Lacaille 1922.			6	C	5.12	ϵ Orionis.		
Jan. 7	F	5 29 30.49	7	G	5.20	Feb. 9	F	5 41 46.85
24	G	30.47	13	C	5.19	14	F	46.86
Feb. 3	C	30.53	May 13	C	5.15			

Day.	Observer.	h. m. s.	Day.	Observer.	h. m. s.	Day.	Observer.	h. m. s.
Lacaille 2032.			Lacaille 2079.			Lacaille 2116.		
Jan. 5	I	5 41 59.35	Jan. 16	I	5 48 11.77	Feb. 13	C	5 52 14.01
7	F	59.33	29	F	11.35	14	F	13.78
12	F	59.26	Feb. 2	F	11.47	17	C	13.80
Lacaille 2037.			α Orionis.			Lacaille 2134.		
Jan. 29	F	5 42 0.20	Jan. 7	F	5 48 21.06	Feb. 9	F	5 56 8.92
Feb. 3	C	0.54	21	C	21.06	11	G	8.86
4	G	0.37	22	G	21.11	13	C	8.94
Lacaille 2038.			23	F	21.00	Lacaille 2157.		
Jan. 2	I	5 42 52.76	24	G	21.04	Feb. 12	I	5 58 16.16
24	G	52.78	30	G	20.98	13	C	16.06
27	G	52.90	Feb. 3	C	21.12	14	F	15.99
Lacaille 2049.			27	F	21.04	γ Orionis.		
Jan. 17	C	5 44 8.22	Mar. 10	C	20.99	Feb. 17	C	6 0 22.69
30	G	8.57	14	F	21.09	18	G	22.62
Sept. 29	F	8.20	July 12	C	21.03	19	F	22.69
Lacaille 2045.			Lacaille 2093.			20	I	22.66
Feb. 2	F	5 44 32.97	Feb. 9	F	5 50 1.61	23	F	22.62
6	C	33.10	12	I	1.78	24	G	22.73
7	G	32.62	14	F	1.49	Lacaille 2193.		
9	F	32.95	Lacaille 2089.			Feb. 12	I	6 3 23.93
Lacaille 2071.			Feb. 17	C	5 50 17.31	13	C	23.84
Jan. 19	I	5 46 29.71	19	G	17.24	14	F	23.64
28	C	29.69	19	F	16.98	Lacaille 2203.		
Feb. 4	G	29.59	Lacaille 2111.			Feb. 9	F	6 6 0.54
Lacaille 2055.			Feb. 20	I	5 50 21.84	11	G	0.61
Jan. 12	F	5 47 45.75	21	G	21.86	12	I	0.50
14	C	45.93	23	F	21.96	Lacaille 2212.		
* N.P.D. 145° 5'.			24	G	22.01	Feb. 6	C	6 7 5.43
Jan. 9	I	5 47 50.14	Lacaille 2091.			13	C	5.58
			Jan. 2	I	5 50 41.92	14	F	5.23
			Feb. 7	G	41.75			
			11	G	41.90			

Day.	Observer.	h. m. s.	Day.	Observer.	h. m. s.	Day.	Observer.	h. m. s.
Lacaille 2227.			μ Geminorum.—Continued.			Lacaille 2308.		
Feb. 12	I	6 9 32.83	Jan. 22	G	6 15 20.18	Feb. 17	C	6 17 45.81
13	C	33.06	24	G	20.19	18	G	45.34
14	F	32.69	27	G	20.27	19	F	45.11
Lacaille 2230.			28	C	20.30	Lacaille 2305.		
Feb. 9	F	6 10 58.61	29	F	20.27	Feb. 14	F	6 19 13.60
11	G	58.68	30	G	20.19	24	G	13.79
13	C	58.37	31	C	20.17	27	F	13.59
Lacaille 2248.			Feb. 2	F	20.26	* 7 mag. N.P.D. 156° 30'.		
Feb. 14	F	6 12 29.91	3	C	20.24			
17	C	30.13	4	G	20.32	Mar. 2	C	6 20 8.48
18	G	29.94	6	C	20.11	Lacaille 2314.		
Lacaille 2272.			7	G	20.23	Feb. 12	I	6 20 23.46
Feb. 20	I	6 13 26.33	Mar. 3	G	20.11	13	C	23.43
23	F	26.35	10	C	20.23	17	C	23.48
24	G	26.34	13	G	20.15	Lacaille 2322.		
Lacaille 2249.			25	G	20.04	Feb. 19	F	6 20 26.10
Feb. 12	I	6 13 43.55	26	C	20.24	20	I	26.66
13	C	43.70	Lacaille 2266.			23	F	26.63
19	F	43.30	Feb. 14	F	6 15 34.46	B.A.C. 2097.		
Lacaille 2283.			17	C	34.47	Dec. 22	F	6 22 24.98
Feb. 25	I	6 13 59.52	19	F	34.40	Lacaille 2340.		
28	G	59.21	Lacaille 2294.			Feb. 9	F	6 23 49.55
Mar. 2	C	59.44	Feb. 12	I	6 16 53.78	11	G	49.45
μ Geminorum.			20	I	53.70	12	I	49.54
Jan. 9	I	6 15 20.23	23	F	53.76	Lacaille 2358.		
13	I	20.32	Lacaille 2298.			Feb. 13	C	6 24 44.64
14	C	20.30	Feb. 9	F	6 17 6.76	14	F	44.55
16	I	20.01	11	G	6.76	17	C	44.10
17	C	20.24	13	C	6.75			
21	C	20.28	* 7.8 mag. N.P.D. 159° 6'.					
			Feb. 27	F	6 17 32.98			

Day.	Observer.	h. m. s.	Day.	Observer.	h. m. s.	Day.	Observer.	h. m. s.
Lacaille 2357.			Lacaille 2451.			Lacaille 2495.		
Feb. 18	G	6 25 18.62	Jan. 28	C	6 38 12.11	Jan. 26	F	6 42 43.90
19	F	18.30	30	G	11.89	Feb. 11	G	43.96
20	I	18.66	31	C	12.02	12	I	44.15
Lacaille 2368.			Lacaille 2472.			Lacaille 2515.		
Feb. 2	F	6 26 33.05	Jan. 29	F	6 39 1.67	Jan. 15	F	6 42 50.66
6	C	33.23	Feb. 3	C	1.64	22	G	51.01
12	I	33.02	4	G	1.67	23	F	50.70
* 7.8 mag. N.P.D. 160° 55'.			Lacaille 2551.			Lacaille 2508.		
Feb. 17	C	6 26 41.26	Sept. 12	C	S.P. 6 39 7.31	Jan. 27	G	6 43 4.43
			18	C	S.P. 7.18	Feb. 4	G	4.22
49 Aurigæ.			α Canis Majoris.			6	C	4.34
Dec. 22	F	6 27 16.04	Jan. 2	I	6 39 35.68	Lacaille 2547.		
Lacaille 2381.			5	I	35.37	Jan. 17	C	6 46 10.82
Feb. 9	F	6 29 42.56	7	F	35.46	28	C	11.20
11	G	42.65	9	I	35.49	29	F	10.87
12	I	42.59	12	F	35.48	Lacaille 2536.		
γ Geminorum.			13	I	35.58	Jan. 31	C	6 46 11.53
Feb. 14	F	6 30 25.90	14	C	35.54	Feb. 2	F	11.41
18	G	25.98	15	F	35.55	3	C	11.42
19	F	25.92	16	I	35.66	Lacaille 2525.		
20	I	25.91	19	I	35.41	Jan. 5	I	6 46 53.82
23	F	25.96	20	F	35.53	12	F	53.68
Lacaille 2419.			Mar. 7	C	35.55	14	C	53.76
Jan. 21	C	6 32 36.04	16	C	35.44	θ Canis Majoris.		
22	G	36.16	21	C	35.34	Feb. 9	F	6 48 20.16
23	F	36.40	July 29	F	35.58	Lacaille 2556.		
Lacaille 2457.			* 7 mag. N.P.D. 170° 29'.			Jan. 15	F	6 49 48.41
Jan. 17	C	6 36 4.15	Sept. 7	I	S.P. 6 39 47.87	23	F	48.68
26	F	4.21	12	C	S.P. 47.65	26	F	48.49
27	G	4.45	18	C	S.P. 47.94			
Lacaille 2454.			Lacaille 2504.					
Feb. 3	C	6 42 25.84	Feb. 3	C	6 42 25.84			
7	G	25.90	7	G	25.90			
9	F	25.89	9	F	25.89			

Day	Observer.	h. m. s.	Day.	Observer.	h. m. s.	Day.	Observer.	h. m. s.
Lacaille 2586.			Lacaille 2587.			Lacaille 2645.		
Jan. 29	F	6 51 27.12	Jan. 5	I	6 54 59.77	Jan. 29	F	7 0 38.71
Feb. 4	G	27.33	17	C	59.67	31	C	39.00
6	C	27.20	Feb. 12	I	59.82	Feb. 3	C	38.98
Lacaille 2596.			Lacaille 2614.			Lacaille 2664.		
Feb. 2	F	6 51 36.31	Jan. 15	F	6 56 6.76	Jan. 15	F	7 3 2.72
7	G	36.37	Feb. 2	F	7.02	21	C	2.73
9	F	36.36	6	C	7.16	23	F	2.68
Lacaille 2597.			Lacaille 2627.			δ Canis Majoris.		
Jan. 31	C	6 52 53.05	Feb. 9	F	6 56 27.77	Dec. 23	G	7 3 16.24
Feb. 11	G	53.28	14	F	27.67	Lacaille 2686.		
12	I	53.21	17	C	28.01	Jan. 28	C	7 4 19.07
ε Canis Majoris.			Lacaille 2644.			Feb. 7	G	18.92
Jan. 21	C	6 53 40.37	Feb. 11	G	6 56 46.67	9	F	18.98
27	G	40.33	18	G	46.78	Lacaille 2653.		
Feb. 4	G	40.39	19	F	46.66	Dec. 22	F	7 5 13.64
18	G	40.30	γ Canis Majoris.			Lacaille 2694.		
19	F	40.35	Jan. 21	C	6 58 3.44	Jan. 26	F	7 6 38.56
25	I	40.38	23	F	3.46	29	F	38.44
28	G	40.36	27	G	3.46	Feb. 3	C	38.61
Mar. 16	C	40.32	29	F	3.41	Lacaille 2704.		
21	C	40.38	Feb. 4	G	3.40	Feb. 11	G	7 6 41.71
23	I	40.46	7	G	3.57	12	I	41.75
26	C	40.35	20	I	3.41	13	C	41.83
June 27	G	40.38	Mar. 24	F	3.36	Lacaille 2723.		
Aug. 7	G	40.25	Dec. 22	F	3.45	Feb. 2	F	7 7 3.41
12	G	40.44	Lacaille 2646.			14	F	3.68
Sept. 9	G	40.33	Jan. 12	F	7 0 3.19	18	G	3.89
Lacaille 2604.			22	G	3.31			
Jan. 12	F	6 53 50.65	26	F	3.22			
22	G	50.52						
28	C	50.90						
Feb. 13	C	50.85						

Day.	Observer.	h. m. s.	Day.	Observer.	h. m. s.	Day.	Observer.	h. m. s.
Lacaille 2716.			δ Geminorum.			Lacaille 2862.		
Feb. 9	F	7 7 55.27	Jan. 28	C	7 12 35.89	Jan. 24	G	7 24 5.49
19	F	55.12	Feb. 28	G	35.80	Feb. 2	F	5.28
23	F	55.40	Mar. 12	I	35.86	4	G	5.51
Lacaille 2746.			Lacaille 2795.			Lacaille 2885.		
Jan. 15	F	7 9 48.31	Jan. 24	G	7 13 24.99	Feb. 14	F	7 25 54.14
23	F	48.51	Feb. 9	F	24.85	18	G	54.21
31	C	48.52	13	C	25.13	19	F	54.24
Lacaille 2743.			Lacaille 2809.			Lacaille 2875.		
Feb. 17	C	7 10 47.68	Jan. 15	F	7 16 53.03	Feb. 9	F	7 25 59.17
19	F	47.40	21	C	53.07	17	C	58.94
20	I	47.62	23	F	53.27	20	I	59.02
Lacaille 2751.			Lacaille 2825.			α^2 Geminorum.		
Jan. 26	F	7 11 6.60	Jan. 26	F	7 17 43.06	Jan. 28	C	7 26 33.45
29	F	6.67	28	C	43.53	31	C	33.51
Feb. 4	G	6.85	29	F	43.03	Lacaille 2887.		
Lacaille 2765.			Lacaille 2828.			Jan. 29	F	7 27 11.08
Feb. 2	F	7 12 10.58	Jan. 24	G	7 18 29.52	Feb. 11	G	11.63
18	G	10.76	31	C	29.75	12	I	11.21
19	F	10.62	Feb. 2	F	29.27	Lacaille 2886.		
Lacaille 2760.			Lacaille 2838.			Jan. 15	F	7 27 15.58
Feb. 6	C	7 12 15.86	Feb. 4	G	7 20 19.59	26	F	15.77
11	G	15.79	6	C	19.58	Feb. 6	C	16.06
12	I	15.75	9	F	19.42	Lacaille 2927.		
Lacaille 2775.			Lacaille 2853.			Jan. 24	G	7 29 45.96
Feb. 14	F	7 12 22.81	Feb. 11	G	7 22 17.20			
23	F	23.27	12	I	17.20			
24	G	22.70	13	C	17.05			

Separate Results for Mean R.A. of Stars observed

Day.	Observer.	h. m. s.	Day.	Observer.	h. m. s.	Day.	Observer.	h. m. s.
α Canis Minoris.			Lacaille 2968.			Lacaille 3038.		
Jan. 15	F	7 32 42.25	Feb. 17	C	7 36 24.59	Jan. 24	G	7 41 58.04
Feb. 2	F	42.26	18	G	24.46	31	C	58.16
13	C	42.39	19	F	24.40	Feb. 6	C	58.17
14	F	42.34	Lacaille 2966.			Lacaille 3056.		
17	C	42.27	Feb. 20 I 7 36 30.74			Feb. 19	F	7 43 21.01
20	I	42.29	23	F	30.68	23	F	21.34
23	F	42.24	24	G	30.80	24	G	21.34
25	I	42.26	Lacaille 2955.			* 8 mag. N.P.D. 162° 18'.		
27	F	42.21	Feb. 28 G 7 36 50.58			Feb. 19	F	7 43 24.
28	G	42.36	Mar. 3	G	50.46	24	G	25.
Mar. 9	I	44.35	9	I	50.65	Lacaille 3037.		
13	G	42.21	β Geminorum.			Feb. 17	C	7 43 31.37
23	I	42.24	Feb. 6 C 7 37 36.28			18	G	31.27
Apr. 9	I	42.23	Lacaille 2977.			20	I	31.24
Aug. 19	G	42.30	Feb. 25 I 7 37 52.85			Lacaille 3055.		
20	G	42.31	27	F	52.59	Feb. 28	G	7 43 46.56
Dec. 22	F	42.35	Mar. 10	C	52.94	Mar. 3	G	46.51
Lacaille 2935.			Lacaille 3010.			9	I	46.02
Jan. 28	C	7 33 29.92	Jan. 30 G 7 37 55.42			Lacaille 3058.		
30	G	29.76	Feb. 2	F	55.02	Feb. 7	G	7 43 55.12
31	C	29.89	4	G	55.32	12	I	55.29
Lacaille 2961.			Oct. 1	F	S.P. 55.31	13	C	55.44
Jan. 29	F	7 34 2.13	Lacaille 3018.			Lacaille 3054.		
Feb. 4	G	2.37	Jan. 26 F 7 40 55.24			Mar. 12	I	7 43 55.68
7	G	2.45	28	C	55.39	13	G	55.36
9	F	2.41	29	F	55.01	14	F	55.08
Lacaille 2967.			Lacaille 2953.					
Feb. 11	G	7 14 5.73	Jan. 24 G 7 35 56.59					
12	I	5.84	Feb. 13	C	56.86			
			14	F	56.46			

Day.	Observer.	h. m. s.	Day.	Observer.	h. m. s.	Day.	Observer.	h. m. s.
Lacaille 3057.			6 Cancr. — Continued.			* 7.8 mag. N.P.D. 159° 40'.		
Feb. 14	F	7 44 34.90	Feb. 23	F	7 55 46.62	Feb. 27	F	8 2 0.37
25	I	35.27	24	G	46.57	Apr. 10	F	0.45
27	F	35.16	25	I	46.59	11	C	0.50
Lacaille 3062.			27	F	46.71	15	C	0.55
Jan. 29	F	7 45 35.68	Mar. 3	G	46.65	15 Argus.		
30	G	36.02	9	I	46.59	Jan. 28	C	8 2 10.69
Feb. 2	F	35.78	10	C	46.59	29	F	10.64
Lacaille 3085.			12	I	46.53	Feb. 2	F	10.65
Feb. 4	G	7 47 22.11	13	G	46.46	24	G	10.68
17	C	22.34	16	C	46.61	Apr. 1	G	10.61
18	G	22.19	Apr. 1	G	46.49	Lacaille 3203.		
Sept. 28	I	S.P. 22.19	2	I	46.69	Jan. 30	G	8 3 26.91
Lacaille 3083.			4	F	46.56	Feb. 25	I	27.11
Jan. 31	C	7 48 50.63	10	F	46.56	Mar. 3	G	27.04
Feb. 12	I	50.53	21	C	46.54	Lacaille 3202.		
14	F	50.51	Dec. 22	F	46.61	Mar. 10	C	8 3 38.13
Lacaille 3111.			Lacaille 3142.			13	G	37.69
Jan. 28	C	7 51 24.64	Jan. 29	F	7 56 39.82	14	F	37.75
29	F	24.03	30	G	39.89	Sept. 14	F	S.P. 37.96
30	G	24.31	31	C	40.25	Lacaille 3194.		
6 Cancr.			Lacaille 3188.			Mar. 16	C	8 3 45.11
Feb. 4	G	7 55 46.75	Feb. 3	C	8 0 47.78	25	G	45.25
6	C	46.70	4	G	47.70	28	G	44.71
7	G	46.55	6	C	47.88	Lacaille 3215.		
9	F	46.56	Sept. 29	C	S.P. 47.75	Mar. 31	C	8 4 4.63
11	G	46.71	Lacaille 3174.			Apr. 1	G	3.84
12	I	46.49	Feb. 7	G	8 1 30.55	2	I	4.48
13	C	46.66	9	F	30.72	* 7.8 mag. N.P.D. 158° 15'.		
14	F	46.57	11	G	30.71	Feb. 27	F	8 6 11.32
18	G	46.61	Lacaille 3182.					
19	F	46.52	Feb. 20	I	8 1 40.86			
20	I	46.67	25	I	41.37			
			27	F	41.10			
			Sept. 19	G	S.P. 40.54			

Day.	Observer.	h. m. s.		Day.	Observer.	h. m. s.		Day.	Observer.	h. m. s.	
Lacaille 3225.				δ^1 Cancr.				Lacaille 3351.			
Feb. 4	G	8	6 23'55	Jan. 31	C	8	16 8'89	Mar. 23	I	8	20 54'60
Mar. 27	F		23'35					31	C		54'63
31	C		23'67	Lacaille 3329.				Apr. 1	G		54'18
Sept. 5	G	S.P.	23'21	Jan. 27	G	8	16 11'80	Lacaille 3396.			
9	G	S.P.	23'05	Feb. 3	C		11'81	Feb. 24	G	8	23 11'35
* 7 mag. N.P.D. 158° 32'.				4	G		11'69	Mar. 3	G		11'23
Apr. 9	I	8	7 25'89	Lacaille 3313.				9	I		11'48
11	C		25'54	Dec. 12	G	8	16 54'86	Lacaille 3383.			
15	C		25'63	17	G		54'48	Feb. 4	G	8	23 14'13
Lacaille 3242.				19	G		54'92	6	C		14'37
Feb. 6	C	8	7 30'95	* 7.8 mag. N.P.D. 158° 36'.				11	G		14'17
27	F		30'85	Apr. 9	I	8	18 59'11	Lacaille 3384.			
Mar. 3	G		30'88	10	F		59'65	Feb. 14	F	8	24 21'52
Sept. 10	F	S.P.	30'57	11	C		59'91	18	G		21'47
Lacaille 3254.				15	C		59'84	19	F		21'49
Mar. 10	C	8	8 37'37	Lacaille 3346.				Sept. 6	F	S.P.	21'70
13	G		37'07	Feb. 25	I	8	19 48'94	7	I	S.P.	21'67
14	F		37'05	27	F		48'61	Lacaille 3420.			
Lacaille 3268.				Mar. 3	G		48'84	Feb. 9	F	8	25 5'28
Jan. 27	G	8	9 35'92	Lacaille 3355.				25	I		5'55
Feb. 2	F		35'59	Mar. 10	C	8	20 10'54	Mar. 12	I		5'73
3	C		35'75	13	G		9'90	η Cancr.			
Sept. 23	C	S.P.	35'46	14	F		9'70	Jan. 30	G	8	25 25'20
β Cancr.				Sept. 21	F	S.P.	10'01	Feb. 3	C		25'12
Jan. 31	C	8	9 40'93	Lacaille 3357.				12	I		25'15
A Octantis.				Mar. 10	C	8	20 21'57	13	C		25'18
Mar. 16	C	8	11 15'70	13	G		21'09	17	C		25'26
21	C		13'78	14	F		20'87	28	G		25'23
25	G		13'92	Lacaille 3379.				Mar. 30	I		25'12
26	C		17'58	Mar. 16	C	8	20 46'01	Apr. 8	G		25'12
Apr. 8	G		16'17	28	G		45'73	22	G		25'30
20	G	S.P.	15'19	30	I		46'47	30	C		25'21
21	C		14'70					May 7	G		25'34
Dec. 22	F		12'82					Dec. 12	G		25'23

Day.	Observer.	h. m. s.	Day.	Observer.	h. m. s.	Day.	Observer.	h. m. s.
Lacaille 3442.			Lacaille 3444.			Lacaille 3559.		
Mar. 26	C	8 26 47.80	Feb. 11	G	8 29 48.12	Apr. 2	I	8 39 22.54
27	F	47.50	18	G	47.89	8	G	22.32
28	G	47.56	19	F	47.72	9	I	22.69
Lacaille 3424.			Lacaille 3499.			Lacaille 3535.		
Mar. 14	F	8 26 57.93	Feb. 13	C	8 33 20.19	Mar. 21	C	8 39 35.44
16	C	58.23	25	I	20.06	27	F	35.29
19	I	58.13	Mar. 12	I	20.12	30	I	35.69
* 7.8 mag. N.P.D. 164° 25'.			Lacaille 3489.			Lacaille 3555.		
Apr. 9	I	8 26 59.77	Mar. 9	I	8 33 32.30	Mar. 10	C	8 39 36.14
10	F	59.23	14	F	31.94	31	C	36.41
11	C	59.59	16	C	32.34	Apr. 1	G	35.92
Lacaille 3432.			γ Cancri.			ε Hydræ.		
Feb. 17	C	8 28 30.72	Mar. 31	C	8 35 59.47	Feb. 9	F	8 40 6.17
Mar. 10	C	30.72	Lacaille 3510.			11	G	6.05
13	G	30.68	Feb. 11	G	8 36 2.09	23	F	6.09
25	G	30.33	18	G	2.34	27	F	6.12
Lacaille 3453.			20	I	2.25	Mar. 14	F	6.03
Mar. 23	I	8 29 16.63	Lacaille 3527.			23	I	6.24
31	C	16.81	Feb. 17	C	8 38 25.78	Apr. 10	F	6.16
Apr. 1	G	16.30	24	G	25.63	11	C	6.09
Lacaille 3464.			25	I	25.94	Dec. 12	G	6.02
Feb. 20	I	8 29 33.85	Lacaille 3536.			22	F	6.17
28	G	34.06	Feb. 28	G	8 38 36.39	Lacaille 3571.		
Mar. 3	G	34.10	Mar. 3	G	36.56	Feb. 18	G	8 41 41.74
Lacaille 3436.			9	I	36.37	20	I	41.60
Dec. 12	G	8 29 44.63	Lacaille 3550.			Mar. 12	I	42.04
17	G	44.60	Mar. 13	G	8 39 12.42	Lacaille 3578.		
22	F	44.53	16	C	12.34	Mar. 3	G	8 42 14.89
			19	I	12.24	Apr. 4	F	14.95
						7	C	15.21

Day.	Observer.	h. m. s.	Day.	Observer.	h. m. s.	Day.	Observer.	h. m. s.
Lacaille 3568.			Lacaille 3609.			Lacaille 3679.		
Feb. 9	F	8 42 42.25	Feb. 23	F	8 48 52.55	Mar. 14	F	8 56 27.21
11	G	42.28	Mar. 12	I	52.65	19	I	27.46
17	C	42.18	13	G	52.32	23	I	27.55
Lacaille 3562.			Lacaille 3629.			Lacaille 3688.		
Feb. 24	G	8 42 44.46	Mar. 14	F	8 49 52.29	Feb. 18	G	8 57 20.57
27	F	44.52	16	C	52.81	24	G	20.51
28	G	44.51	21	C	52.68	25	I	20.66
Lacaille 3583.			α Cancri.			Lacaille 3682.		
Feb. 23	F	8 43 14.20	Mar. 31	C	8 51 35.72	Mar. 16	C	8 57 24.10
Mar. 31	C	14.32	Apr. 7	C	35.69	21	C	24.28
Apr. 1	G	14.09	9	I	35.75	24	F	24.30
Lacaille 3599.			Lacaille 3640.			25	G	24.18
Mar. 14	F	8 44 58.05	Feb. 18	G	8 51 52.71	27	F	23.97
16	C	58.42	20	I	52.83	Lacaille 3683.		
19	I	58.29	24	G	52.70	Mar. 16	C	8 58 21.69
Lacaille 3608.			Lacaille 3680.			21	C	21.65
Mar. 27	F	8 45 53.11	Feb. 23	F	8 54 58.30	30	I	21.89
Apr. 2	I	53.72	27	F	57.57	31	C	21.74
7	C	54.02	28	G	57.82	Lacaille 3694.		
Lacaille 3588.			Lacaille 3666.			Apr. 1	G	8 59 41.75
Feb. 18	G	8 46 26.86	Feb. 11	G	8 55 25.78	2	I	41.88
24	G	26.90	13	C	26.07	4	F	41.71
25	I	27.14	17	C	25.95	Lacaille 3696.		
Lacaille 3610.			* 8 mag. N.P.D. 155° 43'.			Feb. 23	F	9 0 27.18
Feb. 27	F	8 47 41.74	Feb. 11	G	8 55 27	27	F	27.13
28	G	41.71	Lacaille 3674.			28	G	26.95
Mar. 9	I	41.06	Mar. 9	I	8 56 17.10	Lacaille 3709.		
			12	I	17.15	Apr. 7	C	9 0 38.81
			13	G	16.94	8	G	38.66
						9	I	39.04

Day.	Observer.	h. m. s.	Day.	Observer.	h. m. s.	Day.	Observer.	h. m. s.
α Cancri.			Lacaille 3767.			Lacaille 3806.		
Apr. 10	F	9 0 55.26	Mar. 16	C	9 7 0.80	Feb. 27	F	9 15 10.98
20	F	55.37	23	I	0.90	Mar. 23	I	11.21
			31	C	1.38	26	C	11.24
Lacaille 3714.			Lacaille 3752.			Lacaille 3811.		
Feb. 18	G	9 2 21.26	Feb. 18	G	9 7 48.94	Feb. 18	G	9 15 31.15
24	G	20.99	24	G	48.88	23	F	31.09
25	I	21.48	25	I	49.11	24	G	31.14
Lacaille 3730.			Lacaille 3775.			Lacaille 3809.		
Mar. 9	I	9 4 35.95	Feb. 23	F	9 9 50.28	Mar. 13	G	9 15 41.28
14	F	35.74	Mar. 9	I	49.92	14	F	40.87
19	I	36.05	14	F	49.63	16	C	41.15
Lacaille 3736.			Lacaille 3774.			Lacaille 3826.		
Mar. 13	G	9 4 47.71	Apr. 2	I	9 10 3.25	Mar. 9	I	9 17 21.19
27	F	47.57	8	G	3.16	12	I	21.31
30	I	48.01	9	I	3.48	Apr. 1	G	21.08
* 7.8 mag. N.P.D. 157° 59'.			Lacaille 3779.			Lacaille 3845.		
Feb. 27	F	9 5 16.88	Mar. 13	G	9 10 15.03	Mar. 27	F	9 17 35.51
Apr. 10	F	17.16	Apr. 1	G	15.03	30	I	36.13
11	C	17.28	7	C	15.52	31	C	36.06
22	G	17.29	Lacaille 3791 or β Argūs.			Lacaille 3846.		
Lacaille 3745.			Feb. 28	G	9 11 48.35	Apr. 2	I	9 17 37.28
Feb. 17	C	9 6 5.86	Apr. 4	F	48.53	7	C	37.56
28	G	5.44	10	F	48.45	8	G	37.38
Mar. 12	I	6.05	83 Cancri.			Lacaille 3850.		
* 7 mag. N.P.D. 158° 1'.			Feb. 17	C	9 11 56.77	Apr. 9	I	9 18 34.12
Feb. 27	F	9 6 23.52	25	I	56.68	10	F	33.82
Apr. 15	C	23.69	Mar. 10	C	56.81	11	C	33.90
20	F	23.37	12	I	56.82			
22	G	23.62	30	I	56.78			
			Apr. 11	C	56.78			
			13	I	56.85			
			22	G	56.67			

Day.	Observer.	h. m. s.	Day.	Observer.	h. m. s.	Day.	Observer.	h. m. s.
Lacaille 3868.			* 8 mag. N.P.D. 159° 52'.			Lacaille 3954.		
Mar. 16	C	9 19 53.16	Mar. 31	C	9 23 45.17	Mar. 14	F	9 30 1.33
Apr. 13	I	53.26	Lacaille 3914.			23	I	1.90
15	C	53.54	Feb. 19	F	9 25 51.00	26	C	1.83
α Hydraz.			25	I	51.22	Lacaille 3968.		
Feb. 17	C	9 21 23.66	Mar. 9	I	51.13	Feb. 19	F	9 30 38.53
18	G	23.70	Lacaille 3909.			Mar. 30	I	38.99
19	F	23.75	Feb. 28	G	9 26 2.77	31	C	39.16
23	F	23.68	Mar. 13	G	2.75	Lacaille 3970.		
24	G	23.68	14	F	2.33	Mar. 25	G	9 30 42.22
25	I	23.64	16	C	2.70	Apr. 7	C	42.27
27	F	23.70	Lacaille 3922.			8	G	42.13
28	G	23.71	Apr. 1	G	9 26 35.66	Lacaille 3963.		
Mar. 9	I	23.62	2	I	35.32	Mar. 13	G	9 31 47.23
10	C	23.69	7	C	35.60	16	C	47.40
13	G	23.81	Lacaille 3934.			21	C	47.34
14	F	23.63	Apr. 11	C	9 26 46.26	Lacaille 3977.		
21	C	23.71	13	I	46.31	Feb. 27	F	9 33 21.08
24	F	23.72	15	C	46.41	Mar. 9	I	21.14
25	G	23.76	Lacaille 4027.			24	F	20.87
Apr. 1	G	23.70	Sept. 9	G	S.P. 9 28 29.62	o Leonis.		
2	I	23.75	14	F	S.P. 28.83	Apr. 10	F	9 34 25.50
8	G	23.75	Lacaille 3940.			15	C	25.46
20	F	23.68	Feb. 27	F	9 29 0.77	Lacaille 4005.		
22	G	23.71	28	G	1.01	Mar. 12	I	9 38 16.23
Sept. 2	G	23.45	Mar. 12	I	1.04	14	F	15.64
9	G	23.66	Lacaille 3891.			16	C	15.75
Oct. 30	G	23.48	Apr. 8	G	9 22 59.44	Lacaille 3893.		
Dec. 23	G	23.70	9	I	59.72	Mar. 12	I	9 23 5.57
Lacaille 3891.			10	F	59.37	30	I	5.34
Apr. 8	G	9 22 59.44	Lacaille 3940.			31	C	5.50
9	I	59.72	Feb. 27	F	9 29 0.77	Lacaille 3957.		
10	F	59.37	28	G	1.01	Apr. 9	I	9 29 11.61
Lacaille 3893.			Mar. 12	I	1.04	10	F	10.98
Mar. 12	I	9 23 5.57	Lacaille 3957.			11	C	11.09
30	I	5.34	Apr. 9	I	9 29 11.61	Lacaille 3954.		
31	C	5.50	10	F	10.98	Mar. 14	F	9 30 1.33
Lacaille 3891.			11	C	11.09	23	I	1.90
Apr. 8	G	9 22 59.44	Lacaille 3940.			26	C	1.83
9	I	59.72	Feb. 27	F	9 29 0.77	Lacaille 3968.		
10	F	59.37	28	G	1.01	Feb. 19	F	9 30 38.53
Lacaille 3893.			Mar. 12	I	1.04	Mar. 30	I	38.99
Mar. 12	I	9 23 5.57	Lacaille 3957.			31	C	39.16
30	I	5.34	Apr. 9	I	9 29 11.61	Lacaille 3970.		
31	C	5.50	10	F	10.98	Mar. 25	G	9 30 42.22
Lacaille 3891.			11	C	11.09	Apr. 7	C	42.27
Apr. 8	G	9 22 59.44	Lacaille 3940.			8	G	42.13
9	I	59.72	Feb. 27	F	9 29 0.77	Lacaille 3963.		
10	F	59.37	28	G	1.01	Mar. 13	G	9 31 47.23
Lacaille 3893.			Mar. 12	I	1.04	16	C	47.40
Mar. 12	I	9 23 5.57	Lacaille 3957.			21	C	47.34
30	I	5.34	Apr. 9	I	9 29 11.61	Lacaille 3977.		
31	C	5.50	10	F	10.98	Feb. 27	F	9 33 21.08
Lacaille 3891.			11	C	11.09	Mar. 9	I	21.14
Apr. 8	G	9 22 59.44	Lacaille 3940.			24	F	20.87
9	I	59.72	Feb. 27	F	9 29 0.77	o Leonis.		
10	F	59.37	28	G	1.01	Apr. 10	F	9 34 25.50
Lacaille 3893.			Mar. 12	I	1.04	15	C	25.46
Mar. 12	I	9 23 5.57	Lacaille 3957.			Lacaille 4005.		
30	I	5.34	Apr. 9	I	9 29 11.61	Mar. 12	I	9 38 16.23
31	C	5.50	10	F	10.98	14	F	15.64
Lacaille 3891.			11	C	11.09	16	C	15.75

Day.	Observer.	h. m. s.	Day.	Observer.	h. m. s.	Day.	Observer.	h. m. s.
ε Leonis.			Lacaille 4050.			Lacaille 4102.		
Mar. 23	I	9 38 41'82	Apr. 2	I	9 42 49'35	Apr. 4	F	9 52 28'20
26	C	41'76	4	F	49'17	7	C	28'62
31	C	41'74	7	C	49'48	8	G	28'19
Apr. 2	I	41'75	13	I	49'45	10	F	28'22
4	F	41'71	Lacaille 4054.			11	C	28'38
7	C	41'91	Feb. 19 F 9 43 28'52			π Leonis.		
8	G	41'62	Mar. 14 F 28'50			Mar. 9	I	9 53 33'37
9	I	41'76	19 I 28'53			14	F	33'25
13	I	41'74	μ Leonis.			21	C	33'16
15	C	41'76	Mar. 26 C 9 45 35'59			24	F	33'25
May 6	F	41'62	Lacaille 4071.			25	G	33'26
8	I	41'80	Feb. 19 F 9 47 17'18			May 8	I	33'22
Lacaille 4020.			Mar. 9 I 17'54			14	I	33'29
Feb. 27	F	9 39 11'44	12 I 17'12			16	F	33'15
Mar. 9	I	11'64	14 F 16'83			19	C	33'21
May 27	G	11'42	Lacaille 4097.			27	G	33'09
Lacaille 4018.			Mar. 13 G 9 50 29'49			Dec. 19	G	33'17
Feb. 19	F	9 39 28'15	16 C 29'48			23	G	33'16
Mar. 13	G	28'38	19 I 29'48			Lacaille 4116.		
24	F	28'26	Lacaille 4096.			Mar. 12	I	9 53 58'07
25	G	28'37	Mar. 23 I 9 50 41'58			16	C	57'91
Lacaille 4040.			25 G 41'32			26	C	57'88
Mar. 30	I	9 41 4'68	26 C 41'67			Apr. 9	I	57'96
31	C	4'87	Lacaille 4099.			Lacaille 4113.		
Apr. 1	G	4'77	Mar. 30 I 9 51 20'41			Apr. 13	I	9 54 17'26
Lacaille 4044.			31 C 20'29			Dec. 12	G	16'98
Apr. 11	C	9 41 57'97	Apr. 2 I 20'34			17	G	17'31
15	C	57'97	Lacaille 4121.			Mar. 13	G	9 55 47'96
Dec. 23	G	57'87	Mar. 13 G 9 55 47'96			14	F	47'56
Lacaille 4043.			31 C 20'29			23	I	48'26
Apr. 8	G	9 42 25'27	Apr. 2 I 20'34					
9	I	25'38						
10	F	25'17						

Day.	Observer.	h. m. s.	Day.	Observer.	h. m. s.	Day.	Observer.	h. m. s.
Lacaille 4154.			Lacaille 4203.			Lacaille 4248.		
Mar. 24	F	9 58 48.25	Apr. 13	I	10 6 23.07	Apr. 7	C	10 11 36.71
25	G	48.26	22	G	23.08	8	G	36.32
26	C	48.52	28	F	22.93	9	I	36.29
Lacaille 4149.			Lacaille 4205.			γ^1 Leonis.		
Mar. 12	I	9 58 54.59	Mar. 14	F	10 6 58.74	Feb. 19	F	10 13 1.41
Apr. 2	I	54.53	19	I	58.96	Mar. 13	G	1.44
7	C	54.63	Apr. 7	C	59.29	14	F	1.37
α Leonis.			Lacaille 4209.			16	C	1.38
Mar. 3	G	10 1 39.61	Apr. 11	C	10 7 13.02	30	I	1.38
31	C	39.52	21	C	13.03	Apr. 2	I	1.32
Apr. 1	G	39.46	29	F	12.96	May 15	G	1.47
8	G	39.54	Lacaille 4219.			16	F	1.33
13	I	39.56	Apr. 11	C	10 7 55.43	22	F	1.40
20	F	39.51	15	C	55.47	27	G	1.35
29	F	39.62	21	C	55.29	Nov. 13	G	1.24
May 1	I	39.55	Brisbane 2905.			Dec. 23	G	1.54
Sept. 30	G	39.63	Apr. 30	C	10 8 52.40	Lacaille 4280.		
Dec. 12	G	39.55	May 1	I	52.47	Mar. 24	F	10 16 25.73
23	G	39.59	Lacaille 4233.			31	C	26.01
Lacaille 4175.			May 4	I	10 9 56.87	Apr. 4	F	26.29
Mar. 13	G	10 2 47.45	Sept. 17	B	56.24	Lacaille 4279.		
14	F	46.94	Lacaille 4238.			Mar. 16	C	10 16 32.30
16	C	47.14	Apr. 22	G	10 10 28.90	19	I	32.16
Lacaille 4194.			28	F	28.82	26	C	32.51
Apr. 8	G	10 4 29.87	29	F	28.72	Lacaille 4290.		
9	I	30.12	Lacaille 4243.			Mar. 30	I	10 17 40.08
10	F	29.78	Apr. 10	F	10 10 44.45	Apr. 2	I	40.81
Lacaille 4184.			13	I	44.39	7	C	40.43
Apr. 15	C	10 5 7.49	20	F	44.36	Lacaille 4296.		
20	F	7.38	Lacaille 4296.			Apr. 8	G	10 19 14.09
21	C	7.64	Apr. 8	G	10 19 14.09	9	I	14.33
			9	I	14.33	10	F	13.89
			10	F	13.89			

Day.	Observer.	h. m. s.	Day.	Observer.	h. m. s.	Day.	Observer.	h. m. s.
μ Hydræ.			Lacaille 4343.			Lacaille 4466.		
Apr. 11	C	10 19 59.82	Apr. 10	F	10 26 14.12	Apr. 4	F	10 39 43.33
15	C	59.81		C	14.35	7	C	43.44
21	C	59.83		F	14.10	8	G	42.97
May 29	C	59.80						
Lacaille 4319.			Lacaille 4357.			Lacaille 4467.		
Mar. 16	C	10 21 53.46	Apr. 15	C	10 27 9.26	Mar. 16	C	10 40 32.34
25	G	53.01		F	9.33	19	I	31.86
26	C	53.62		C	9.47	23	I	32.20
31	C	53.55						
Lacaille 4322.			Lacaille 4351.			* 6 mag. N.P.D. 160° 12'.		
Apr. 13	I	10 22 12.81	Apr. 9	I	10 27 16.63	Mar. 16	C	10 40 44.27
15	C	12.94		I	16.66	May 6	F	44.04
20	F	12.85				7	G	44.12
21	C	12.87						
Lacaille 4321.			Lacaille 4367.			Lacaille 4474.		
Apr. 2	I	10 23 27.28	Apr. 2	I	10 28 5.86	Mar. 26	C	10 40 56.81
7	C	27.26		F	5.50	30	I	56.92
8	G	27.16		C	5.70	Apr. 2	I	57.13
				G	5.27			
Lacaille 4335.			Lacaille 4416.			Lacaille 4490.		
Mar. 19	I	10 24 1.45	Mar. 16	C	10 34 48.34	Apr. 13	I	10 42 25.44
23	I	1.99		I	48.03	15	C	25.70
30	I	1.97		I	48.29	20	F	25.36
ρ Leonis.			34 Sextantis.			/ Leonis.		
Mar. 3	G	10 26 10.58	Apr. 7	C	10 36 7.03	Mar. 12	I	10 42 37.95
21	C	10.47		I	7.03	24	F	37.98
25	G	10.63		C	7.01	Apr. 21	C	38.00
26	C	10.66		C	7.02	30	C	38.00
Apr. 4	F	10.51		C	6.96	May 1	I	38.02
30	C	10.62						
May 1	I	10.50	Lacaille 4439.			Lacaille 4486.		
14	I	10.42	Mar. 26	C	10 36 17.78	Apr. 9	I	10 42 41.77
15	G	10.48		I	17.70	10	F	41.70
18	I	10.52		C	18.08	11	C	41.73
19	C	10.53						
22	F	10.54						
28	I	10.63						
29	C	10.44						

Day.	Observer.	h. m. s.	Day.	Observer.	h. m. s.	Day.	Observer.	h. m. s.
Lacaille 4491.			δ Leonis.			Lacaille 4622.		
Apr. 22	G	10 43 24.73	Mar. 16	C	10 54 3.14	May 7	G	11 2 15.34
24	C	24.83				8	I	15.11
29	F	24.60	Lacaille 4618.			14	I	15.39
ω Ursæ Majoris.			Apr. 21	C	10 58 14.72	Lacaille 4625.		
Dec. 23	G	10 46 43.14	30	C	14.89	Apr. 29	F	11 2 17.38
Lacaille 4521.			May 1	I	14.65	May 15	G	17.27
Mar. 31	C	10 48 23.97	χ Leonis.			16	F	17.27
Apr. 2	I	23.91	Mar. 16	C	10 58 31.05	Lacaille 4654.		
7	C	23.82	24	F	30.96	Apr. 8	G	11 6 50.89
8	G	23.58	Apr. 4	F	31.10	21	C	51.02
Lacaille 4531.			10	F	30.97	30	C'	50.60
Mar. 19	I	10 49 34.22	11	C	30.94	δ Leonis.		
26	C	34.47	20	F	30.96	Mar. 30	I	11 7 24.31
30	I	34.52	29	F	31.08	June 3	G	24.18
Lacaille 4545.			May 6	F	31.05	4	F	24.21
Apr. 10	F	10 52 35.64	7	G	31.00	Oct. 12	I	24.11
11	C	35.89	16	F	30.96	Lacaille 4664.		
13	I	36.01	18	I	30.95	Apr. 28	F	11 7 24.51
Lacaille 4548.			22	F	30.97	29	F	24.54
Apr. 15	C	10 52 54.43	28	I	30.97	May 1	I	24.55
20	F	54.17	June 5	I	31.07	Lacaille 4689.		
21	C	54.19	Lacaille 4594.			May 4	I	11 9 37.33
Lacaille 4564.			Mar. 30	I	10 58 49.96	7	G	37.63
Apr. 24	C	10 53 40.91	Apr. 8	G	49.41	8	I	37.58
28	F	40.67	13	I	50.08	Lacaille 4681.		
29	F	40.63	* 7.8 mag. N.P.D. 157° 13'.			May 6	F	11 9 53.95
30	C	40.78	Apr. 30	C	11 0 46.11	14	I	53.99
			Lacaille 4620.			15	G	53.85
			Apr. 28	F	11 0 56.64			
			May 4	I	56.51			
			6	F	56.67			

Day.	Observer.	h. m. s.	Day.	Observer.	h. m. s.	Day.	Observer.	h. m. s.
Lacaille 4684.			Lacaille 4722.			Lacaille 4780.		
May 18	I	11 9 58.51	May 8	I	11 15 3.82	Mar. 24	F	11 26 18.92
19	C	58.27	14	I	4.19	Apr. 8	G	18.90
22	F	57.99	16	F	3.77	11	C	19.11
Lacaille 4682.			Lacaille 4724.			Lacaille 4786.		
May 16	F	11 10 12.89	May 18	I	11 15 5.15	Apr. 21	C	11 26 37.20
27	G	12.97	22	F	4.60	30	C	37.18
28	I	13.47	27	G	4.64	May 1	I	37.14
Lacaille 4692.			Lacaille 4721.			Lacaille 4782.		
May 29	F	11 11 5.09	May 4	I	11 15 10.89	Apr. 10	F	11 26 44.41
June 3	G	5.07	6	F	10.68	28	F	44.32
4	F	4.98	7	G	11.02	29	F	44.32
5	I	5.22	Lacaille 4744.			Lacaille 4791.		
Lacaille 4701.			Mar. 13	G	11 19 9.95	May 4	I	11 27.57.69
Mar. 13	G	11 12 11.07	24	F	10.19	6	F	57.58
Apr. 8	G	11.09	Apr. 7	C	10.67	7	G	57.84
21	C	11.24	Lacaille 4752.			Lacaille 4813.		
Lacaille 4706.			Apr. 8	G	11 20 17.56	May 8	I	11 30 25.17
Apr. 29	F	11 12 30.34	10	F	17.51	14	I	25.09
30	C	30.27	11	C	17.72	15	G	24.65
May 1	I	30.15	r Leonis.			v Leonis.		
δ Crateris.			Mar. 21	C	11 21 27.49	Mar. 13	G	11 30 29.90
Apr. 28	F	11 13 2.49	26	C	27.45	23	I	29.77
Oct. 13	G	2.30	Apr. 21	C	27.48	25	G	29.84
18	G	2.37	May 5	C	27.41	26	C	29.74
Lacaille 4716.			Lacaille 4765.			Apr. 7	C	29.82
May 15	G	11 14 3.27	Apr. 13	I	11 23 9.92	9	I	29.86
19	C	3.84	15	C	9.78	15	C	29.87
28	I	3.95	20	F	9.75	20	F	29.83
						22	G	29.81
						May 5	C	29.74
						16	F	29.85
						18	I	29.90
						28	I	29.80
						June 5	I	29.83

Separate Results for Mean R.A. of Stars observed

Day.	Observer.	h. m. s.	Day.	Observer.	h. m. s.	Day.	Observer.	h. m. s.
Lacaille 4822.			Lacaille 4871.			β Leonis.		
Apr. 10	F	11 31 38.14	Apr. 29	F	11 37 44.37	Apr. 2	I	11 42 37.88
11	C	38.37	May 4	I	44.71	13	I	37.85
13	I	38.29	8	I	44.56	May 19	C	37.90
Lacaille 4826.			Lacaille 4879.			28	I	37.79
Mar. 24	F	11 32 6.80	May 5	C	11 39 8.16	June 5	I	37.90
Apr. 21	C	6.93	6	F	8.17	17	I	37.93
28	F	6.72	14	I	8.29	Dec. 11	I	37.92
Lacaille 4828.			Lacaille 4883.			Lacaille 4907.		
Apr. 29	F	11 32 16.37	Apr. 28	F	11 39 40.35	Apr. 29	F	11 43 55.67
30	C	16.54	30	C	40.24	May 7	G	55.82
May 1	I	16.45	May 1	I	40.27	8	I	55.77
Lacaille 4840.			Lacaille 4891.			Lacaille 4915.		
May 6	F	11 33 5.04	Mar. 24	F	11 40 27.00	Apr. 21	C	11 44 42.10
7	G	5.32	Apr. 7	C	27.47	May 6	F	42.03
16	F	5.01	11	C	27.18	14	I	42.17
Lacaille 4855.			* 7.8 mag. N.P.D. 160° 13'.			Lacaille 4912.		
Apr. 7	C	11 34 37.59	Mar. 24	F	11 40 34.95	Apr. 11	C	11 44 51.15
8	G	37.31	Apr. 8	G	35.19	28	F	50.81
10	F	37.08				May 1	I	50.74
Lacaille 4866.			Lacaille 4896.			Lacaille 4935.		
May 15	G	11 36 41.77	May 15	G	11 41 41.00	Apr. 7	C	11 48 31.16
18	I	42.28	16	F	40.86	8	G	30.88
19	C	42.06	18	I	41.36	10	F	30.93
Lacaille 4870.			Lacaille 4899.			Lacaille 4962.		
Apr. 13	I	11 37 25.91	Apr. 10	F	11 42 11.45	Apr. 1	G	11 52 12.80
21	C	25.74	30	C	11.80	11	C	12.96
22	G	25.61	May 5	C	11.40	21	C	12.86
						π Virginis.		
						Apr. 10	F	11 54 24.98
						May 19	C	24.94

Day.	Observer.	h. m. s.	Day.	Observer.	h. m. s.	Day.	Observer.	h. m. s.
Lacaille 4980.			Lacaille 5018.			ε Corvi.—Continued.		
May 6	F	11 55 19.85	May 22	F	11 59 36.52	May 7	G	12 3 38.73
7	G	20.13	June 3	G	36.54	8	I	38.75
June 12	C	19.86	4	F	36.57	27	G	38.76
Lacaille 4981.			8	C	37.11	June 3	G	38.68
Apr. 22	G	11 55 27.92	Lacaille 5017.			4	F	38.74
28	F	27.88	June 5	I	11 59 37.39	5	I	38.83
29	F	27.59	9	F	37.39	9	F	38.75
Lacaille 4984.			10	G	37.53	10	G	38.85
Apr. 30	C	11 56 4.58	Lacaille 5019.			Aug. 19	G	38.78
May 1	I	4.43	Apr. 1	G	11 59 47.09	Dec. 11	I	38.70
5	C	4.35	15	C	47.12	23	G	38.72
Lacaille 4985.			21	C	47.38	Lacaille 5047.		
May 7	G	11 56 12.46	Lacaille 5020.			Apr. 10	F	12 4 19.95
8	I	12.62	Apr. 22	G	11 59 51.68	15	C	20.15
14	I	12.52	28	F	51.83	21	C	20.14
Lacaille 4996.			30	C	51.93	Lacaille 5060.		
May 15	G	11 57 16.19	Lacaille 5028.			Apr. 1	G	12 6 1.27
16	I	16.27	May 5	C	12 1 13.17	29	F	1.01
18	I	16.61	16	F	13.23	30	C	1.30
Lacaille 5000.			18	I	13.56	Lacaille 5072.		
Apr. 8	G	11 58 9.87	Lacaille 5040.			Apr. 22	G	12 7 32.20
10	F	10.06	May 1	I	12 3 0.87	28	F	31.98
11	C	10.07	14	I	0.92	May 1	I	32.13
Lacaille 5012.			15	G	0.49	* 7.6 mag. N.P.D. 155° 49'.		
May 19	C	11 59 22.51	ε Corvi.			Apr. 22	G	12 7 40.80
27	G	22.20	Mar. 30	I	12 3 38.58	28	F	40.74
28	I	22.41	Apr. 2	I	38.71	May 6	F	40.55
			7	C	38.70	Lacaille 5079.		
			29	F	38.73	May 5	C	12 9 27.94
						7	G	28.02
						8	I	27.72

Day.	Observer.	h. m. s.	Day.	Observer.	h. m. s.	Day.	Observer.	h. m. s.
Lacaille 5081.			* 7 ⁸ mag. N.P.D. 155° 7'.			Lacaille 5139.		
May 15	G	12 9 59'36	May 14	I	12 13 36'02	June 3	G	12 18 21'52
18	I	59'90	Lacaille 5111.			12	F	21'60
19	C	59'84	June 3	G	12 15 4'08	13	G	21'57
Lacaille 5083.			4	F	4'03	Lacaille 5149.		
May 16	F	12 10 17'89	5	I	4'22	May 15	G	12 20 5'49
27	G	17'73	Lacaille 5112.			16	F	5'63
28	I	18'15	May 15	G	12 15 8'15	18	I	5'98
Lacaille 5084.			19	C	8'57	Lacaille 5158.		
May 22	F	12 10 46'71	22	F	8'31	May 19	C	12 20 50'55
June 3	G	47'15	Lacaille 5113.			22	F	50'10
4	F	46'76	May 16	F	12 15 10'83	27	G	50'15
η Virginis.			27	G	10'75	Lacaille 5166.		
Mar. 24	F	12 13 27'60	28	I	11'30	Apr. 15	C	12 22 49'35
26	C	27'47	Lacaille 5123.			21	C	49'25
31	C	27'59	Apr. 28	F	12 16 28'14	30	C	49'29
Apr. 1	G	27'58	May 5	C	28'09	May 6	F	49'23
7	C	27'49	6	F	27'97	Lacaille 5170.		
8	G	27'56	Lacaille 5132.			June 3	G	12 23 11'81
10	F	27'51	June 8	C	12 17 37'32	4	F	12'01
11	C	27'59	9	F	37'09	9	F	11'92
15	C	27'52	10	G	37'19	Lacaille 5168.		
21	C	27'57	Lacaille 5133.			Apr. 1	G	12 23 14'85
28	F	27'59	Apr. 22	G	12 17 45'34	8	G	14'82
29	F	27'53	28	F	45'24	10	F	14'67
May 6	F	27'60	May 5	C	45'21	δ^3 Corvi.		
18	I	27'60	Lacaille 5137.			Dec. 10	G	12 23 20'83
June 8	C	27'56	May 7	G	12 18 16'69			
9	F	27'51	8	I	16'89			
10	G	27'55	14	I	16'70			
11	I	27'69	Lacaille 5100.					
12	F	27'55	Apr. 30	C	12 13 34'47			
13	G	27'52	May 7	G	34'51			

Day	Observer.	h. m. s.	Day.	Observer.	h. m. s.	Day.	Observer.	h. m. s.
Lacaille 5181.			β Corvi.—Continued.			Lacaille 5221.		
Apr. 15	C	12 24 35'07	May 6	F	12 27 46'23	May 22	F	12 31 11'40
21	C	35'01	14	I	46'12	June 3	G	11'91
22	G	35'20	June 9	F	46'25	5	I	11'99
30	C	35'09	13	G	46'24	Lacaille 5224.		
Lacaille 5184.			23	G	46'25	Apr. 10	F	12 31 25'13
June 5	I	12 24 58'28	Oct. 18	G	46'10	11	C	25'22
8	C	58'49	26	G	46'24	21	C	25'12
10	G	58'32	Nov. 13	G	46'16	Lacaille 5227.		
Lacaille 5183.			18	G	46'15	Apr. 30	C	12 32 29'46
June 12	F	12 25 2'44	27	G	45'97	May 14	I	29'37
13	G	2'32	Dec. 5	G	46'26	19	C	29'53
16	G	2'33	6	G	46'34	28	I	29'50
Lacaille 5182.			10	G	46'26	Lacaille 5228.		
May 15	G	12 25 5'27	20	G	46'23	May 7	G	12 32 51'46
27	G	5'30	Lacaille 5206.			16	F	51'13
28	I	5'89	Apr. 8	G	12 28 7'26	18	I	51'13
Lacaille 5194.			May 1	I	7'36	Lacaille 5236.		
May 16	F	12 26 21'10	5	C	7'60	May 1	I	12 34 25'02
18	I	21'38	Lacaille 5210.			6	F	24'67
19	C	21'55	Apr. 10	F	12 29 3'73	8	I	24'89
Lacaille 5203.			11	C	3'82	γ Virginis (Mean).		
May 7	G	12 27 32'63	21	C	3'95	May 4	I	12 35 16'52
22	F	32'32	Lacaille 5213.			22	F	16'46
June 3	G	32'45	Apr. 28	F	12 29 41'53	June 4	F	16'47
β Corvi.			May 4	I	41'68	19	F	16'56
Mar. 23	I	12 27 46'11	8	I	41'62	25	I	16'49
25	G	46'20	Lacaille 5219.			γ^1 Virginis.		
30	I	46'25	May 15	G	12 30 28'32	Dec. 4	G	12 35 16'66
Apr. 1	G	46'32	27	G	28'43			
9	I	46'25	June 4	F	28'35			
13	I	46'20	8	C	29'01			

Day.	Observer.	h. m. s.	Day.	Observer.	h. m. s.	Day.	Observer.	h. m. s.
γ^a Virginis.			Lacaille 5318.			Lacaille 5393.		
Dec. 5	G	12 35 16.59	May 15	G	12 48 8.51	Apr. 21	C	13 0 8.50
			16	F	8.54	30	C	8.35
Lacaille 5255.			18	I	8.67	May 4	I	8.81
Apr. 10	F	12 37 18.63	δ Virginis.			Lacaille 5409.		
11	C	18.85	June 18	C	12 49 15.41	Apr. 22	G	13 3 11.84
21	C	18.90	Lacaille 5323.			May 15	G	11.72
Lacaille 5267.			May 19	C	12 49 25.50	16	F	11.76
May 4	I	12 38 34.63	22	F	25.16	θ Virginis.		
7	G	34.58	27	G	24.94	Apr. 28	F	13 3 25.61
8	I	34.55	Lacaille 5327.			29	F	25.57
Lacaille 5275.			June 3	G	12 49 41.12	May 1	I	25.56
Apr. 22	G	12 40 34.56	4	F	41.08	5	C	25.70
30	C	34.67	5	I	41.24	6	F	25.62
May 1	I	34.66	Lacaille 5335.			8	I	25.60
35 Virginis.			May 6	F	12 51 15.06	14	I	25.69
May 16	F	12 41 26.49	7	G	15.54	19	C	25.65
June 18	C	26.49	14	I	15.40	27	G	25.63
Lacaille 5279.			Lacaille 5349.			28		25.72
May 6	F	12 41 37.01	Apr. 22	G	12 53 38.22	June 3	G	25.66
14	I	36.84	29	F	38.11	4	F	25.64
15	G	36.86	30	C	38.53	9	F	25.62
Lacaille 5297.			Lacaille 5356.			10	G	25.60
Apr. 21	C	12 45 29.08	Apr. 30	C	12 54 33.16	11	I	25.63
22	G	29.24	May 1	I	33.25	12	F	25.65
May 1	I	29.16	5	C	33.13	13	G	25.66
Lacaille 5310.			Lacaille 5378.			16	G	25.57
May 4	I	12 47 23.32	Apr. 22	G	12 58 35.97	17	I	25.55
7	G	23.36	May 6	F	35.82	18	C	25.68
8	I	23.54	8	I	36.22	19	F	25.56
			14	I	35.91	26	F	25.70
			Lacaille 5416.			July 6	G	25.70
			May 7	G	13 4 30.29			
			18	I	30.24			
			22	F	29.78			

Day.	Observer.	h. m. s.	Day.	Observer.	h. m. s.	Day.	Observer.	h. m. s.
Lacaille 5430.			Lacaille 5456.			Lacaille 5497.		
Apr. 29	F	13 6 29'28	June 12	F	13 9 15'90	May 27	G	13 15 38'62
May 19	C	29'57	13	G	15'99	28	I	38'98
27	G	29'36	16	G	16'06	June 3	G	38'66
* 7.6 mag. N.P.D. 157° 13'.			Lacaille 5459.			Lacaille 5508.		
June 19	F	13 6 39'49	June 17	I	13 10 9'25	June 12	F	13 16 38'41
25	I	39'53	18	C	8'51	13	G	38'66
26	F	39'30	19	F	8'65	16	G	38'57
Lacaille 5433.			Lacaille 5463.			Lacaille 5506.		
Apr. 21	C	13 6 44'21	May 7	G	13 10 59'52	May 15	G	13 16 41'22
30	C	44'12	19	C	59'59	18	I	41'38
May 8	I	44'19	27	G	59'17	19	C	41'34
Lacaille 5432.			Lacaille 5470.			Lacaille 5504.		
June 3	G	13 6 44'52	Apr. 29	F	13 11 46'13	June 5	I	13 17 20'94
4	F	44'20	June 3	G	46'31	10	G	21'07
5	I	44'44	4	F	46'27	11	I	21'03
Lacaille 5445.			Lacaille 5481.			α Virginis.		
June 9	F	13 8 40'23	May 15	G	13 13 3'88	Jan. 5	I	13 18 33'46
10	G	40'43	16	F	4'02	Apr. 28	F	33'40
11	I	40'68	22	F	3'98	May 5	C	33'36
Lacaille 5451.			Lacaille 5480.			8	I	33'38
May 15	G	13 8 45'12	Apr. 21	C	13 13 34'35	14	I	33'40
16	F	45'10	22	G	34'14	June 16	G	33'42
18	I	45'15	30	C	34'21	17	I	33'47
Lacaille 5455.			Lacaille 5486.			19	F	33'43
May 22	F	13 9 11'90	June 4	F	13 15 14'21	25	I	33'33
28	I	12'34	8	C	14'92	26	F	33'45
June 8	C	12'41	9	F	14'19	Sept. 30	G	33'26
						Oct. 27	G	33'26
						Nov. 2	G	33'20
						18	G	33'32
						Lacaille 5528.		
						May 16	F	13 19 31'43
						22	F	31'47
						27	G	31'39

Day.	Observer.	h. m. s.	Day.	Observer.	h. m. s.	Day.	Observer.	h. m. s.
Lacaille 5529.			Lacaille 5595.			Lacaille 5666.		
Apr. 21	C	13 19 40.07	May 15	G	13 30 22.13	June 8	C	13 40 55.10
22	G	40.06	16	F	22.28	9	F	54.73
30	C	40.02	19	C	22.56	10	G	54.99
Lacaille 5566.			Lacaille 5592.			Lacaille 5678.		
May 6	F	13 24 50.35	June 9	F	13 30 59.83	May 15	G	13 42 1.71
15	G	50.15	10	G	60.09	16	F	1.76
16	F	50.23	11	I	60.11	19	C	2.00
Lacaille 5567.			Lacaille 5597.			Lacaille 5677.		
May 19	C	13 25 0.83	May 22	F	13 31 21.09	May 27	G	13 42 30.80
27	G	0.70	June 12	F	21.34	June 3	G	31.18
June 3	G	0.83	13	G	21.26	5	I	31.23
Lacaille 5568.			Lacaille 5619.			Lacaille 5679.		
Apr. 30	C	13 25 59.18	Apr. 30	C	13 33 58.82	May 22	F	13 43 5.32
May 22	F	59.23	June 8	C	59.31	June 4	F	5.28
28	I	59.44	10	G	59.36	11	I	5.91
ζ Virginis.			Lacaille 5630.			Lacaille 5687.		
Apr. 12	G	13 28 16.37	May 19	C	13 35 13.09	June 12	F	13 43 56.75
21	C	16.38	27	G	12.69	13	G	56.73
22	G	16.40	28	I	13.09	15	C	57.10
May 15	G	16.36	Lacaille 5642.			Lacaille 5689.		
18	I	16.28	May 6	F	13 36 6.94	May 6	F	13 44 23.72
June 16	G	16.36	15	G	6.91	June 16	G	24.01
25	I	16.40	16	F	7.13	17	I	24.37
Lacaille 5587.			Lacaille 5651.			Lacaille 5693.		
June 4	F	13 29 14.39	May 22	F	13 37 36.90	June 19	F	13 44 56.23
5	I	14.52	June 3	G	37.28	23	G	56.06
8	C	14.93	4	F	36.86	24	C	56.18
Lacaille 5594.								
May 6	F	13 30 4.83						
27	G	4.88						
June 3	G	5.02						

Day.	Observer.	h. m. s.	Day.	Observer.	h. m. s.	Day.	Observer.	h. m. s.
Lacaille 5698.			Lacaille 5745.			Lacaille 5781.		
June 26	F	13 45 10 ⁹⁷	June 4	F	13 49 39 ⁰⁸	May 22	F	13 56 56 ³⁹
27	G	11 ³⁰	9	F	39 ⁰²	27	G	56 ⁷³
29	I	11 ²⁸	10	G	39 ²⁶	28	I	56 ⁸⁵
Lacaille 5696.			Lacaille 5755.			94 Virginia.		
June 9	F	13 45 15 ⁸¹	May 6	F	13 50 35 ⁹²	June 12	F	13 59 37 ⁵⁹
10	G	16 ¹⁹	June 3	G	36 ²⁷	Lacaille 5804.		
18	C	16 ⁰⁹	5	I	36 ³⁵	May 6	F	14 0 3 ⁰⁷
Lacaille 5707.			Lacaille 5761.			15	G	2 ⁹³
June 3	G	13 46 27 ⁶¹	May 15	G	13 51 24 ¹⁹	16	F	3 ⁰⁴
8	C	27 ⁸⁰	16	F	24 ³⁴	Lacaille 5811.		
11	I	27 ⁶⁶	19	C	24 ⁶⁰	May 19	C	14 0 41 ⁴¹
12	F	27 ⁵¹	r Virginia.			June 3	G	41 ²⁸
Lacaille 5721.			Apr. 12	G	13 55 14 ⁰⁷	4	F	41 ¹³
May 15	G	13 47 48 ⁸⁷	30	C	14 ⁰⁶	Lacaille 5831.		
16	F	49 ¹²	May 6	F	14 ⁰³	May 7	G	14 3 58 ⁰²
19	C	49 ²⁷	7	G	14 ⁰⁹	22	F	57 ⁴⁷
η Boötis.			16	F	14 ⁰⁹	27	G	57 ⁶⁷
Apr. 12	G	13 48 41 ⁰⁷	June 3	G	14 ²⁴	Lacaille 5836.		
30	C	41 ⁰⁵	4	F	14 ⁰⁹	May 28	I	14 4 55 ⁶²
June 13	G	41 ⁰⁴	8	C	14 ⁰⁷	June 8	C	55 ⁵¹
15	C	40 ⁹⁹	9	F	14 ⁰³	9	F	55 ¹⁹
16	G	40 ⁹⁵	10	G	14 ¹³	Lacaille 5846.		
23	G	41 ²³	11	I	14 ¹⁷	May 15	G	14 6 43 ¹⁸
24	C	41 ⁰⁵	12	F	14 ¹⁰	16	F	43 ¹³
27	G	41 ⁰¹	15	C	14 ¹⁶	19	C	43 ³¹
July 12	C	41 ⁰⁰	17	I	14 ¹⁶	Lacaille 5853.		
Lacaille 5740.			18	C	14 ⁰⁴	June 4	F	14 7 41 ²⁷
May 22	F	13 49 8 ⁵³	19	F	14 ¹⁰	9	F	41 ³⁹
27	G	8 ⁵⁹	24	C	14 ¹⁴	10	G	41 ⁴⁷
28	I	8 ⁸³	25	I	14 ⁰⁶			
			26	F	14 ⁰⁰			
			27	G	14 ¹⁵			
			29	I	14 ¹¹			
			July 9	I	14 ¹¹			

Day.	Observer.	h. m. s.	Day.	Observer.	h. m. s.	Day.	Observer.	h. m. s.
Lacaille 5847.			Lacaille 5908.			Z Octantis.		
May 27	G	14 8 12.71	June 5	I	14 17 5.18	June 16	G	14 28 51.85
June 3	G	12.75	8	C	5.23	July 17	F	48.51
5	I	12.74	9	F	4.97	17	G	S.P. 48.60
α Boötis.			B.A.C. 4782.			18	C	48.66
Jan. 9	I	14 9 54.89				18	G	S.P. 48.64
May 15	G	54.80	May 16	F	14 20 47.25	21	C	49.83
22	F	54.82	June 19	F	47.20	21	F	S.P. 49.92
28	I	54.94	23	G	47.17	22	G	49.79
June 11	I	54.74	Lacaille 5948.			22	G	S.P. 49.69
24	C	54.83				Aug. 1	G	49.10
29	I	54.91	May 15	G	14 23 18.70	1	G	S.P. 49.32
July 3	I	54.74	19	C	19.17	7	G	49.32
9	I	54.79	27	G	18.93	Dec. 4	C	S.P. 49.49
13	I	54.91	Lacaille 5944.			5	G	S.P. 49.44
17	F	54.89				6	G	S.P. 48.25
20	F	54.85	June 8	C	14 23 20.14	Lacaille 5972.		
22	G	54.96	17	I	20.20	June 19	F	14 28 50.65
23	I	54.85	18	C	19.92	23	G	50.64
24	C	54.74	ρ Boötis.			24	C	50.86
Oct. 13	G	54.87				α Centauri.—Mag. 1.		
27	G	54.73	May 22	F	14 26 23.97	Dec. 2	G	14 31 3.00
Nov. 18	G	54.79	Lacaille 5976.			α Centauri.—Mag. 4.		
Lacaille 5865.						Dec. 3	G	14 31 3.71
May 7	G	14 10 57.23	May 15	G	14 27 13.61	Lacaille 6011.		
16	F	56.87	16	F	13.78	May 16	F	14 33 2.86
19	C	57.30	19	C	13.87	19	C	2.89
Lacaille 5890.			July 28	G	13.84	27	G	2.74
May 15	G	14 14 41.25	Lacaille 5986.			Lacaille 6046.		
22	F	41.30	May 27	G	14 28 45.63	June 3	G	14 36 55.58
27	G	41.47	June 17	I	46.19	4	F	55.39
Lacaille 5899.			18	C	45.95	10	G	55.49
May 28	I	14 15 36.81						
June 3	G	36.78						
4	F	36.67						

Day.	Observer.	h. m. s.	Day.	Observer.	h. m. s.	Day.	Observer.	h. m. s.
Lacaille 6045.			Lacaille 6066.			Lacaille 6106.		
June 15	C	14 37 8.33	May 7	G	14 40 40.63	June 9	F	14 44 3.69
17	I	8.44	16	F	40.52	13	G	3.83
18	C	8.14	19	C	40.81	15	C	4.27
23	G	7.82	Lacaille 6089.			Lacaille 6105.		
* 7 mag. N.P.D. 156° α.			June 3	G	14 42 42.56	June 11	I	14 46 24.80
June 26	F	14 37 53.45	4	F	42.16	16	G	24.42
27	G	53.49	8	C	43.13	17	I	24.73
29	I	53.85	Lacaille 6085.			Lacaille 6128.		
Lacaille 6059.			May 7	G	14 43 12.47	May 15	G	14 49 12.15
June 9	F	14 38 6.13	16	F	12.16	June 3	G	12.67
12	F	6.11	19	C	12.35	5	I	12.79
13	G	6.24	Lacaille 6093.			Lacaille 6136.		
Lacaille 6044.			May 27	G	14 43 22.31	June 8	C	14 50 3.29
June 5	I	14 38 18.62	June 10	G	22.60	9	F	2.76
16	G	18.65	12	F	22.18	10	G	3.11
19	F	18.23	α ³ Libræ.			Lacaille 6144.		
24	C	18.49	Jan. 13	I	14 43 54.69	June 12	F	14 51 12.56
Lacaille 6061.			16	I	54.70	13	G	12.53
May 27	G	14 38 56.32	May 28	I	54.50	17	I	13.20
June 11	I	56.58	June 26	F	54.55	Lacaille 6150.		
15	C	56.56	27	G	54.65	May 7	G	14 52 40.76
α ³ Boötis.			29	I	54.68	16	F	40.46
July 17	F	14 39 29.05	July 3	I	54.63	19	C	40.87
20	F	28.93	6	G	54.68	Lacaille 6158.		
21	C	28.98	9	I	54.66	May 7	G	14 53 51.30
29	C	28.95	13	I	54.52	16	F	50.70
31	F	29.08	16	I	54.55	19	C	51.01
Aug. 3	C	28.93	18	C	54.62			
6	F	28.99	20	F	54.67			
			23	I	54.52			
			27	I	54.63			
			30	I	54.50			
			31	F	54.63			
			Aug. 1	G	54.46			
			4	G	54.39			
			6	F	54.64			
			Dec. 6	G	54.67			

Lac. 6089, June 8.—The definition exceedingly bad.

Day.	Observer.	h. m. s.	Day.	Observer.	h. m. s.	Day.	Observer.	h. m. s.
Lacaille 6163.			Lacaille 6197.			Lacaille 6234.		
May 15	G	14 53 59.98	June 19	F	14 58 19.45	June 19	F	15 3 47.12
June 3	G	60.42	23	G	19.69	23	G	47.35
5	I	60.69	27	G	19.66	26	F	47.13
Lacaille 6167.			- ψ Boötis.			Lacaille 6251.		
June 18	C	14 54 40.29	July 16	I	14 59 2.81	June 3	G	15 6 7.37
19	F	39.97	30	I	2.84	4	F	7.29
23	G	39.92	Aug. 7	G	2.88	13	G	7.46
Lacaille 6169.			Lacaille 6196.			Lacaille 6247.		
June 8	C	14 56 6.03	June 3	G	14 59 38.87	June 15	C	15 6 45.64
10	G	5.50	17	I	39.29	17	I	45.68
11	I	5.73	18	C	39.05	18	C	45.35
Lacaille 6184.			Lacaille 6213.			* 7.8 mag. N.P.D. 156° 0'.		
June 9	F	14 56 21.31	June 4	F	15 0 17.33	July 4	C	15 7 4.23
13	G	21.65	13	G	17.48	18	C	4.43
15	C	21.95	15	C	18.00	21	C	4.33
Lacaille 6185.			Lacaille 6220.			Lacaille 6255.		
June 12	F	14 56 42.66	May 19	C	15 2 0.77	June 9	F	15 7 10.62
24	C	42.55	June 8	C	0.01	10	G	10.96
26	F	42.29	10	G	0.90	12	F	10.72
Lacaille 6193.			Lacaille 6222.			Lacaille 6264.		
July 8	F	14 58 3.13	June 9	F	15 2 15.83	June 26	F	15 8 31.39
9	I	3.21	12	F	16.01	July 3	I	31.55
13	I	3.43	24	C	16.11	6	G	31.55
Lacaille 6189.			Lacaille 6227.			Lacaille 6252.		
June 29	I	14 58 4.55	May 19	C	15 3 7.10	June 24	C	15 8 35.21
July 3	I	4.52	June 8	C	7.38	27	G	35.14
4	C	4.22	11	I	7.41	29	I	35.40
6	G	4.18						

Day.	Observer.	h. m. s.	Day.	Observer.	h. m. s.	Day.	Observer.	h. m. s.
* 8.7 mag. N.P.D. 156° 5'.			Lacaille 6308.			Lacaille 6340.		
July 9	I	15 8 47.77	June 18	C	15 14 23.77	July 9	I	15 18 42.53
21	C	47.80	19	F	23.54	13	I	42.38
22	G	47.44	23	G	23.52	16	I	42.26
Lacaille 6268.			Lacaille 6321.			Lacaille 6358.		
June 23	G	15 9 11.44	June 26	F	15 15 35.45	June 18	C	15 19 58.19
July 13	I	11.82	27	G	35.88	19	F	57.89
16	I	11.55	July 17	F	35.61	23	G	57.99
β Libræ.			* 7.6 mag. N.P.D. 155° 40'.			* 7.8 mag. N.P.D. 156° 58'.		
May 15	G	15 10 13.75	June 24	C	15 16 9.63	June 13	G	15 20 50.10
16	F	13.65	July 21	C	9.76	Lacaille 6371.		
19	C	13.64	22	G	9.81	June 24	C	15 21 52.70
21	I	13.58	Lacaille 6323.			26	F	52.46
June 5	I	13.65	June 15	C	15 17 50.28	27	G	52.82
July 17	F	13.72	29	I	49.99	Lacaille 6369.		
20	F	13.65	July 3	I	50.11	June 4	F	15 22 39.87
27	I	13.71	4	C	49.79	10	G	40.07
Aug. 7	G	13.66	6	G	49.73	12	F	39.83
Dec. 10	G	13.77	Lacaille 6331.			Lacaille 6394.		
Lacaille 6290.			June 12	F	15 17 52.04	June 3	G	15 24 55.44
June 3	G	15 11 19.70	13	G	52.07	9	I	54.98
4	F	19.59	17	I	52.33	11	I	55.26
8	C	19.78	Lacaille 6345.			Lacaille 6397.		
Lacaille 6281.			June 3	G	15 17 59.75	June 15	C	15 24 59.82
June 10	G	15 11 59.67	4	F	59.72	17	I	59.92
11	I	59.68	10	G	59.94	18	C	59.56
12	F	59.25	Lacaille 6346.			Lacaille 6386.		
Lacaille 6285.			May 19	C	15 18 12.25	June 23	G	15 25 42.97
June 13	G	15 12 8.61	June 8	C	12.29	25	I	43.74
15	C	8.71	11	I	12.40	29	I	43.31
17	I	8.98						

Day.	Observer.	h. m. s.	Day.	Observer.	h. m. s.	Day.	Observer.	h. m. s.
Lacaille 6390.			α Serpentis.			Lacaille 6534.		
June 26	F	15 26 25.60	May 15	G	15 38 37.6	June 9	F	15 46 6.65
27	G	25.95	June 12	F	37.1	10	G	6.87
July 3	I	26.03	15	C	36.9	29	I	7.11
Lacaille 6403.			17	I	37.4	* 7.8 mag. N.P.D. 160° 44'.		
June 4	F	15 27 33.09	18	C	36.7	June 9	F	15 46 11.62
8	C	33.47	19	F	36.9	10	G	11.73
10	G	33.35	25	I	37.6	11	I	11.93
Lacaille 6401.			26	F	36.9	Lacaille 6536.		
June 12	F	15 27 46.27	July 3	I	36.2	June 8	C	15 46 51.26
13	G	46.53	6	G	37.7	23	G	51.02
24	C	46.53	13	I	37.5	27	G	51.15
α Coronæ Borealis.			16	I	37.6	Lacaille 6542.		
May 19	C	15 29 21.17	22	G	38.7	May 27	G	15 47 48.21
June 5	I	21.05	Aug. 8	C	37.5	June 12	F	48.23
Dec. 21	G	21.07	11	C	36.6	13	G	48.16
Lacaille 6423.			Dec. 15	G	38.7	Lacaille 6573.		
June 3	G	15 30 47.48	20	G	37.5	June 8	C	15 51 55.94
9	F	47.68	21	G	37.2	17	I	56.11
10	G	47.76	Lacaille 6501.			18	C	55.81
* 7.8 mag. N.P.D. 159° 53'.			May 27	G	15 40 29.82	Lacaille 6597.		
July 3	I	15 31 35.70	June 3	G	30.06	May 27	G	15 53 11.86
6	G	35.44	8	C	30.02	June 9	F	11.64
13	I	36.00	Lacaille 6494.			10	G	11.88
Lacaille 6477.			June 9	F	15 40 51.98	Lacaille 6591.		
May 27	G	15 36 25.25	10	G	52.11	June 12	F	15 54 6.94
June 3	G	25.49	11	I	52.32	13	G	7.37
4	F	25.28	Lacaille 6518.			23	G	6.90
			June 12	F	15 43 4.28			
			13	G	4.38			
			15	C	4.68			
			17	I	4.75			
			Lacaille 6512.					
			June 18	C	15 44 14.49			
			24	C	14.54			
			25	I	14.55			

Day.	Observer.	h. m. s.	Day.	Observer.	h. m. s.	Day.	Observer.	h. m. s.
Lacaille 6606.			Lacaille 6698.			Lacaille 6737.		
June 11	I	15 55 42.20	June 17	I	16 4 33.29	June 23	G	16 10 40.60
24	C	42.13	18	C	33.08	24	C	40.80
25	I	42.32	23	G	32.56	25	I	40.72
Lacaille 6613.			Lacaille 6681.			Lacaille 6769.		
June 26	F	15 55 47.91	June 24	C	16 4 59.97	May 27	G	16 14 20.21
27	G	47.82	25	I	60.20	June 27	G	20.45
29	I	48.00	26	F	60.04	29	I	20.37
β^1 Scorpii.			Lacaille 6714.			Lacaille 6768.		
June 3	G	15 58 6.74	July 3	I	16 7 34.43	June 26	F	16 14 31.68
4	F	6.71	6	G	34.21	July 3	I	32.23
5	I	6.75	9	I	34.61	6	G	32.05
9	F	6.73	δ Ophiuchi.			Lacaille 6771.		
10	G	6.55	May 27	G	16 7 44.55	June 15	C	16 14 56.97
13	G	6.72	June 4	F	44.65	23	G	56.09
16	G	6.78	8	C	44.69	24	C	56.15
17	I	6.68	9	F	44.64	Lacaille 6775.		
19	F	6.76	11	I	44.45	June 12	F	16 15 23.93
27	G	6.68	12	F	44.59	July 9	I	24.33
July 3	I	6.79	23	G	44.66	17	F	23.80
9	I	6.73	July 23	I	44.57	Lacaille 6773.		
Aug. 14	F	6.79	Aug. 1	G	44.51	Aug. 19	G	16 18 50.83
17	F	6.77	19	G	44.76	Lacaille 6809.		
Dec. 20	G	6.66	Dec. 20	G	44.57	May 27	G	16 20 26.42
21	G	6.82	21	G	44.63	June 12	F	26.51
23	G	6.77	Lacaille 6723.			15	C	27.36
Lacaille 6682.			June 10	G	16 7 46.97	Lacaille 6814.		
May 27	G	16 3 35.96	27	G	46.93	June 18	C	16 21 31.67
June 8	C	36.12	29	I	46.71	23	G	31.44
9	F	35.91	Lacaille 6749.			24	C	31.58
Lacaille 6675.			June 12	F	16 10 35.28			
June 10	G	16 3 50.24	17	I	35.70			
11	I	50.49	18	C	35.39			
12	F	50.05						
16	G	50.30						

Day.	Observer.	h. m. s.	Day.	Observer.	h. m. s.	Day.	Observer.	h. m. s.
α Scorpii.			Lacaille 6865.			Lacaille 6906.		
Jan. 7	F	16 21 41.06	June 24	C	16 28 24.46	July 6	G	16 34 0.13
15	F	40.98	27	G	24.45	23	I	0.30
27	G	41.05	29	I	24.54	24	C	0.31
30	G	40.86	Lacaille 6861.			Lacaille 6911.		
June 8	C	40.87	June 12	F	16 28 50.68	July 17	F	16 35 20.16
10	G	41.03	25	I	50.97	27	I	20.91
17	I	40.91	26	F	50.31	28	G	20.43
27	G	40.94	* 7.8 mag. N.P.D. 157° 14'.			30	I	20.52
July 6	G	41.07	July 21	C	16 29 28.01	Lacaille 6901.		
13	I	41.10	24	C	28.21	June 25	I	16 36 17.08
16	I	40.92	Lacaille 6881.			July 18	C	17.22
17	F	40.95	July 6	G	16 30 37.94	22	G	16.82
22	G	41.01	17	F	37.59	ζ Herculis.		
23	I	40.96	21	C	37.92	June 12	F	16 36 32.09
27	I	41.01	Lacaille 6877.			23	G	32.32
30	I	41.06	July 3	I	16 31 1.08	Lacaille 6947.		
Aug. 1	G	40.97	9	I	1.29	June 15	C	16 39 25.19
10	I	41.07	16	I	0.99	18	C	24.95
13	I	41.08	Lacaille 6892.			23	G	24.72
Nov. 11	I	41.09	June 8	C	16 33 5.03	24	C	24.90
19	C	40.86	15	C	5.36	Lacaille 6954.		
Dec. 10	G	40.90	24	C	5.12	June 26	F	16 39 39.85
15	G	40.81	Lacaille 6900.			27	G	40.19
Lacaille 6844.			June 26	F	16 33 56.09	July 3	I	40.26
June 25	I	16 23 37.95	27	G	56.49	Lacaille 6945.		
26	F	37.80	29	I	56.26	July 6	G	16 40 1.52
27	G	37.89	Lacaille 6846.			9	I	1.91
Lacaille 6846.			June 29	I	16 24 0.87	16	I	1.82
June 29	I	0.87	July 3	I	0.64	Lacaille 6847.		
July 3	I	0.64	6	G	0.83	June 8	C	16 26 13.13
6	G	0.83	9	I	0.90	15	C	13.30
9	I	0.90	Lacaille 6847.			23	G	13.25
Lacaille 6847.			June 8	C	16 26 13.13			
June 8	C	16 26 13.13	15	C	13.30			
15	C	13.30	23	G	13.25			
23	G	13.25						

Day.	Observer.	h. m. s.	Day.	Observer.	h. m. s.	Day.	Observer.	h. m. s.
Lacaille 6961.			α Ophiuchi.			Lacaille 7081.		
July 17	F	16 42 47 ¹⁹	June 18	C	16 51 42 ²⁹	June 27	G	17 0 18 ⁸⁹
18	C	47 ⁵³	27	G	42 ³⁶	July 6	G	18 ⁸⁵
21	C	47 ⁵⁷	29	I	42 ³⁰	9	I	19 ³⁵
Lacaille 6828.			July 17	F	42 ³⁰	Lacaille 7107.		
Aug. 20 I 16 43 37 ⁷⁷			18	C	42 ³⁵	July 24	C	17 0 26 ⁰¹
Lacaille 6969.			21	C	42 ³²	27	I	26 ³¹
June 23	G	16 44 29 ⁷³	23	I	42 ¹⁸	29	C	25 ⁸⁰
25	I	29 ⁸⁸	24	C	42 ²²	Lacaille 7094.		
27	G	29 ⁸⁸	27	I	42 ²¹	June 15	C	17 1 10 ⁷¹
Lacaille 6998.			30	I	42 ³³	29	I	9 ⁹⁵
July 6	G	16 46 1 ⁴⁷	31	F	42 ²⁶	July 3	C	10 ²⁹
9	I	1 ⁶⁹	Aug. 10	I	42 ³²	* 7 ⁸ mag. N.P.D. 155° 32'.		
16	I	1 ⁴⁴	13	I	42 ²⁹	June 24	C	17 1 19 ⁶⁶
Lacaille 6989.			22	G	42 ³⁵	July 30	I	19 ⁹⁵
June 26	F	16 46 2 ⁹⁶	Lacaille 7071.			31	F	19 ⁶⁷
29	I	3 ⁴²	June 24	C	16 54 59 ⁹⁹	Lacaille 7122.		
July 3	I	3 ⁵²	27	G	59 ⁷⁴	July 17	F	17 1 33 ³⁵
Lacaille { 6988. } { 6990. }			29	I	59 ⁹⁷	18	C	33 ⁶⁵
June 12	F	16 47 26 ⁹⁹	Lacaille 7069.			28	G	33 ¹⁷
15	C	27 ⁶⁷	July 3	I	16 55 43 ⁵³	Lacaille 7104.		
24	C	26 ⁹⁶	6	G	43 ³³	July 16	I	17 3 24 ⁹¹
Lacaille 7039.			9	I	43 ⁵⁹	22	G	24 ³⁹
June 23	G	16 51 21 ⁰²	Lacaille 7061.			23	I	24 ⁸⁰
25	I	21 ⁴³	July 16	I	16 55 48 ³³	Lacaille 7142.		
26	F	20 ⁸⁸	17	F	47 ⁹²	June 26	F	17 4 33 ¹²
			18	C	48 ⁵⁷	27	G	33 ⁴⁴
			Lacaille 7079.			July 6	G	33 ³⁷
			June 23	G	16 58 5 ⁶⁹			
			25	I	6 ²⁴			
			26	F	5 ⁶³			
			Lacaille 7103.					
			July 21	C	16 59 41 ²⁴			
			22	G	41 ⁰⁰			
			23	I	41 ³⁸			

Day.	Observer.	h. m. s.		Day.	Observer.	h. m. s.		Day.	Observer.	h. m. s.	
Lacaille 7146.				θ Ophiuchi.				Lacaille 7316.			
June 25	I	17	6 14.29	June 29	I	17	14 16.17	June 23	G	17	27 27.56
July 17	F		14.01	July 3	I		16.42	27	G		27.76
18	C		14.77	9	I		16.34	July 6	G		27.93
21	C		14.37	13	I		16.31				
				23	I		16.29	α Ophiuchi.			
Lacaille 7156.				29	C		16.25	Jan. 22	G	17	29 5.13
July 18	C	17	8 3.56	30	I		16.34	Feb. 18	G		5.30
21	C		4.07	Aug. 20	I		16.30	25	I		5.32
22	G		3.15	Lacaille 7198.				June 13	G		5.16
				June 23	G	17	14 33.15	25	I		5.11
Lacaille 7157.				24	C		33.47	26	F		5.12
July 3	I	17	8 22.35	25	I		33.39	July 3	I		5.21
6	G		22.02	Lacaille 7240.				8	G		5.35
9	I		22.35	June 13	G	17	21 39.30	16	I		5.18
				24	C		39.39	Aug. 7	G		5.09
Lacaille 7162.				25	I		39.34	Lacaille 7317.			
June 24	C	17	8 50.12	Lacaille 7078.				June 24	C	17	29 10.82
26	F		49.79	Aug. 20	I	17	21 55.12	July 24	C		10.90
27	G		50.09	Lacaille 7290.				28	G		10.52
α ¹ Herculis.				June 26	F	17	23 35.59	Lacaille 7355.			
June 15	C	17	8 54.20	27	G		35.80	June 27	G	17	34 30.10
23	G		54.08	July 3	I		36.01	July 6	G		30.19
July 29	C		54.13	Lacaille 7285.				9	I		30.82
Lacaille 7185.				July 6	G	17	24 41.54	Lacaille 7359.			
June 13	G	17	11 25.03	9	I		42.07	June 24	C	17	34 32.45
July 16	I		24.69	16	I		41.79	July 16	I		32.20
17	F		24.51	Lacaille 7292.				17	F		32.02
Lacaille 7197.				July 17	F	17	26 39.45	β Ophiuchi.			
June 26	F	17	12 42.67	18	C		40.40	July 21	C	17	37 14.93
27	G		42.85	21	C		40.08				
July 6	G		42.61								

Day.	Observer.	h. m. s.	Day.	Observer.	h. m. s.	Day.	Observer.	h. m. s.
Lacaille 7416.			Lacaille 7456.			Lacaille 7572.		
July 6	G	17 40 42.97	July 16	I	17 49 50.33	July 6	G	18 4 46.84
9	I	43.34	17	F	49.77	17	F	46.73
16	I	42.72	18	C	50.36	21	C	47.27
Lacaille 7401.			21	C	50.45	μ Sagittarii.		
July 18	C	17 41 8.95	Lacaille 7481.			June 16	G	18 6 13.75
21	C	8.80	July 23	I	17 50 38.20	July 13	I	13.64
23	I	8.66	24	C	38.77	16	I	13.70
μ Herculis.			28	G	37.98	30	I	13.66
June 24	C	17 41 31.67	Lacaille 7500.			Aug. 4	G	13.60
July 17	F	31.54	July 6	G	17 54 59.82	6	F	13.70
Aug. 10	I	31.69	21	C	60.27	8	C	13.61
13	I	31.66	23	I	59.58	12	G	13.61
14	F	31.59	Lacaille 7507.			22	G	13.67
17	F	31.55	July 17	F	17 56 33.69	Sept. 2	G	13.80
19	G	31.39	24	C	34.23	9	G	13.65
21	F	31.58	28	G	33.76	19	G	13.68
Sept. 2	G	31.85	Lacaille 7532.			Lacaille 7628.		
3	F	31.59	July 6	G	17 59 54.71	July 6	G	18 12 30.38
5	G	31.51	16	I	54.56	16	I	30.46
Lacaille 7415.			18	C	54.83	17	F	30.06
July 24	C	17 42 40.29	7 α Ophiuchi.			Lacaille 7636.		
28	G	39.87	Aug. 6	F	18 1 22.52	July 18	C	18 13 9.95
29	C	40.23	Lacaille 7574.			21	C	9.98
Lacaille 7432.			July 23	I	18 4 32.17	23	I	9.72
July 30	I	17 43 42.86	24	C	32.16	σ Octantis.		
31	F	42.78	28	G	31.85	Mar. 21	F	S.P. 18 13 35.73
Aug. 1	G	42.78	Lacaille 7574.			21	F	35.58
Lacaille 7457.			July 23	I	18 4 32.17	22	F	S.P. 37.30
July 6	G	17 49 13.30	24	C	32.16	22	G	37.62
9	I	14.08	28	G	31.85	24	F	S.P. 37.12
13	I	13.06	Lacaille 7574.			24	G	36.93
			July 23	I	18 4 32.17	25	G	S.P. 36.30
			24	C	32.16	25	S	36.48
			28	G	31.85	26	C	S.P. 36.05
						26	S	36.14

Day.	Observer.	h. m. s.	Day.	Observer.	h. m. s.	Day.	Observer.	h. m. s.
* 7 mag. N.P.D. 159° 23'.			Lacaille 7707.			Lacaille 7785.		
July 18	C	18 14 15.40	July 21	C	18 24 42.08	July 13	I	18 33 4.35
21	C	15.32	28	G	41.53	Aug. 1	G	4.33
Aug. 11	C	15.48	29	C	41.87	4	G	4.21
Lacaille 7642.			30	I	41.86	Lacaille 7771.		
July 24	C	18 16 44.20	Lacaille 7740.			July 29	C	18 34 12.70
28	G	43.63	July 16	I	18 28 16.65	Aug. 7	G	12.38
29	C	44.09	23	I	16.56	8	C	12.60
Lacaille 7666.			24	C	16.76	Lacaille 7796.		
July 6	G	18 18 51.00	Lacaille 7736.			July 17	F	18 34 24.14
13	I	51.36	July 31	F	18 28 17.82	31	F	23.95
17	F	50.72	Aug. 1	G	18.08	Aug. 3	C	24.23
Lacaille 7678.			3	C	18.16	2 Aquilæ.		
July 23	I	18 20 20.60	Lacaille 7749.			Sept. 23	C	18 35 22.44
24	C	20.40	July 6	G	18 28 50.71	Lacaille 7813.		
28	G	20.01	17	F	50.64	July 16	I	18 36 14.12
Lacaille 7679.			21	C	50.88	23	I	14.08
Aug. 1	G	18 21 15.00	Lacaille 7752.			24	C	14.45
3	C	15.02	July 28	G	18 30 51.07	Lacaille 7789.		
4	G	14.98	29	C	51.62	Aug. 1	G	18 37 21.65
Lacaille 7697.			Aug. 7	G	51.44	3	C	21.52
July 29	C	18 21 26.20	α Lyræ.			4	G	21.72
30	I	26.11	Mar. 23	I	18 32 40.31	Lacaille 7856.		
31	F	25.84	July 18	C	40.21	July 13	I	18 43 56.76
Lacaille 7706.			24	C	40.26	17	F	56.49
July 6	G	18 24 29.27	Sept. 10	F	40.24	18	C	57.01
17	F	29.18	14	F	40.30	Lacaille 7864.		
18	C	29.56	21	F	40.27	July 23	I	18 44 31.91
			Nov. 19	C	40.36	29	C	32.07
			Dec. 4	C	40.21	31	F	31.58

Day.	Observer.	h. m. s.	Day.	Observer.	h. m. s.	Day.	Observer.	h. m. s.
Lacaille 7857.			Lacaille 7944.			Lacaille 8004.		
Aug. 7	G	18 45 17.74	July 29	C	18 56 30.30	Aug. 1	G	19 4 43.80
8	C	17.77	31	F	29.96	3	C	43.93
11	C	17.97	Aug. 1	G	30.21	13	I	44.11
Lacaille 7848.			Lacaille 7964.			14	F	44.02
Aug. 1	G	18 45 5.54	July 18	C	18 58 54.77	Lacaille 8001.		
3	C	5.42	21	C	54.73	July 18	C	19 6 28.81
4	G	5.52	23	I	54.29	21	C	29.08
Lacaille 7851.			ζ Aquilæ.			23	I	28.36
Aug. 13	I	18 45 17.81	July 6	G	18 59 37.01	* 7.8 mag. N.P.D. 160° 5'.		
14	F	17.31	17	F	37.12	July 18	C	19 6 53.23
15	G	17.36	Aug. 8	C	37.15	21	C	53.52
β ¹ Lyræ.			11	C	37.10	ψ Sagittarii.		
July 21	C	18 45 25.54	12	G	37.15	Aug. 21	F	19 7 48.71
Lacaille 7880.			13	I	37.12	Lacaille 8034.		
July 29	C	18 47 15.18	20	I	37.01	July 22	G	19 10 55.51
Aug. 11	C	15.20	24	I	37.04	29	C	55.35
12	G	14.86	Sept. 3	F	37.10	Aug. 1	G	55.70
Lacaille 7897.			7	I	37.15	Lacaille 8042.		
July 13	I	18 50 0.93	24	I	37.24	Aug. 3	C	19 11 3.63
17	F	0.52	28	I	37.12	4	G	3.85
18	C	1.09	Lacaille 7969.			7	G	3.47
ε Aquilæ.			July 29	C	19 1 14.06	8	C	3.84
Aug. 3	C	18 53 54.24	Aug. 3	C	13.73	ω Aquilæ.		
Lacaille 7928.			4	G	13.90	Apr. 15	G	19 11 54.21
July 21	C	18 55 32.51	Lacaille 7986.			July 23	I	54.03
23	I	32.47	July 24	C	19 2 56.28	24	C	54.34
24	C	32.79	31	F	56.08	31	F	54.06
			Aug. 7	G	56.19	Aug. 24	I	54.08
			Lacaille 7997.			Sept. 3	F	54.09
			Aug. 8	C	19 4 31.11	5	G	54.13
			11	C	31.12	7	I	54.06
			12	G	30.78	24	I	54.27
						28	I	54.10

Day.	Observer.	h. m. s.	Day.	Observer.	h. m. s.	Day.	Observer.	h. m. s.
Lacaille 8036.			Lacaille 8048.			Lacaille 8114.		
Aug. 11	C	19 11 56.58	July 29	C	19 15 33.47	July 31	F	19 26 2.65
17	F	56.10	Aug. 29	B	33.14	Aug. 3	C	2.95
22	G	56.45	Sept. 3	F	33.02	4	G	2.99
			5	G	33.26			
Lacaille 8020.			Lacaille 8059.			Lacaille 8113.		
Mar. 14	F	S.P. 19 11 57.72	Aug. 3	C	19 17 26.53	Aug. 7	G	19 26 8.08
			4	G	26.80	8	C	8.26
			7	G	26.67	11	C	8.22
						12	G	7.90
* 7 mag. N.P.D. 161° 42'.			Lacaille 8078.			Lacaille 8119.		
Aug. 11	C	19 12 21.48	July 21	C	19 18 3.32	Aug. 17	F	19 26 13.00
17	F	20.90	30	I	3.42	19	G	13.17
22	G	21.45	31	F	3.01	20	I	13.21
Lacaille 8031.			♂ Aquilæ.			Lacaille 8127.		
Aug. 12	G	19 12 59.52	Apr. 15	G	19 19 8.63	Aug. 1	G	19 27 23.15
20	I	60.01	July 12	C	8.74	13	I	23.42
21	F	59.48	24	C	8.61	21	F	23.08
Lacaille 8056.			Aug. 11	C	8.69			
July 31	F	19 14 31.98	13	I	8.66	Lacaille 8112.		
Aug. 13	I	32.54	17	F	8.68	July 29	C	19 28 32.68
19	G	32.09	20	I	8.68	Aug. 11	C	32.45
			21	F	8.69	22	G	32.51
			22	G	8.65	24	I	32.46
			Sept. 7	I	8.68			
			28	I	8.70			
* 7 mag. N.P.D. 164° 14'.			Lacaille 8096.			♂ Sagittarii.		
July 22	G	19 15 19.72	July 22	G	19 21 58.71	Apr. 15	G	19 29 2.14
Aug. 1	G	19.93	29	C	59.02	July 18	C	2.29
8	C	20.34	Aug. 1	G	58.80	21	C	2.23
24	I	20.16				Aug. 4	G	2.36
Lacaille 8046.			α Vulpeculæ.			7	G	2.34
July 29	C	19 15 26.72	July 18	C	19 23 27.76	12	G	2.26
Sept. 3	F	26.08	Oct. 6	C	27.69	19	G	2.24
5	G	26.56				Sept. 10	F	2.23

Day.	Observer.	h. m. s.	Day.	Observer.	h. m. s.	Day.	Observer.	h. m. s.
Lacaille 8148.			Lacaille 8177.			Lacaille 8205.		
July 22	G	19 31 39.79	Aug. 1	G	19 36 50.07	July 29	C	19 44 6.48
31	F	39.68	3	C	49.86	Aug. 8	C	6.56
Aug. 1	G	39.97	4	G	49.95	12	G	6.06
Lacaille 8147.			Lacaille 8184.			α Aquilæ.		
Aug. 3	C	19 31 51.47	Aug. 8	C	19 37 30.20	Jan. 27	G	19 44 37.95
7	G	51.44	12	G	29.80	Feb. 11	G	38.09
8	C	51.79	19	G	29.90	23	F	38.21
Lacaille 8145.			Lacaille 8190.			24	G	38.05
Aug. 12	G	19 33 29.15	July 22	G	19 37 55.81	Mar. 13	G	38.13
17	F	29.05	29	C	56.27	25	G	38.06
19	G	29.25	31	F	55.94	30	I	38.23
Oct. 2	I	29.65	Lacaille 8195.			Apr. 15	F	38.14
Lacaille 8151.			Aug. 17	F	19 38 56.41	July 12	C	38.10
July 29	C	19 34 16.65	Sept. 4	C	56.68	17	F	38.14
30	I	16.67	9	G	56.17	20	F	38.08
Aug. 11	C	16.61	10	F	56.27	22	G	38.02
Lacaille 8156.			Lacaille 8187.			24	C	38.12
Aug. 13	I	19 34 51.34	Aug. 11	C	19 39 50.20	30	I	38.03
20	I	51.23	20	I	50.31	31	F	38.08
21	F	51.12	21	F	50.02	Aug. 4	G	38.24
Lacaille 8171.			γ Aquilæ.			14	F	38.13
Aug. 29	B	19 36 32.04	Apr. 15	F	19 40 16.13	Sept. 9	G	38.10
Sept. 3	F	31.80	July 12	C	16.15	Lacaille 8224.		
5	G	32.05	21	C	16.19	Aug. 13	I	19 45 38.66
7	I	32.17	24	C	16.11	17	F	38.31
Lacaille 8168.			Lacaille 8203.			19	G	38.43
Aug. 7	G	19 36 32.76	Aug. 1	G	19 42 53.32	Lacaille 8213.		
22	G	32.99	3	C	53.61	Aug. 11	C	19 45 45.00
24	I	32.83	7	G	53.67	20	I	44.91
						22	C	44.63
						Lacaille 8219.		
						Sept. 7	I	19 45 58.96
						9	G	58.67
						10	F	58.67

Day.	Observer.	h. m.	Day.	Observer.	h. m. s.	Day.	Observer.	h. m. s.
Lacaille 8229.			Lacaille 8259.			θ Aquilæ.		
Aug. 24	I	19 45 59.38	Aug. 19	G	19 53 58.12	July 29	C	20 4 48.23
Sept. 3	F	59.18	20	I	58.55	Lacaille 8353.		
4	C	59.51	21	F	57.85	Aug. 13		
5	G	59.53	Lacaille 8273.			I	20 4 57.26	
Lacaille 8244.			Aug. 1	G	19 54 12.28	17	F	56.87
July 22	G	19 48 5.43	7	G	12.25	19	G	56.86
29	C	5.81	17	F	11.92	Lacaille 8342.		
Aug. 1	G	5.74	Lacaille 8270.			Aug. 22	G	20 6 30.69
β Aquilæ.			Aug. 3	C	19 54 48.11	24	I	31.21
Apr. 15	F	19 49 7.37	22	G	48.07	Sept. 7	I	31.39
July 12	C	7.41	24	I	48.07	Lacaille 8371.		
20	F	7.46	Lacaille 8295.			Aug. 1	G	20 9 28.27
Aug. 22	G	7.36	Sept. 3	F	19 56 20.69	3	C	28.23
24	I	7.43	4	C	20.98	7	G	28.43
Sept. 5	G	7.47	7	I	20.87	8	C	28.46
21	F	7.41	10	F	20.62	Lacaille 8374.		
24	I	7.36	Lacaille 8284.			Aug. 12	G	20 9 35.24
Oct. 10	G	7.51	Aug. 12	G	19 56 48.06	17	F	35.36
Lacaille 8254.			29	B	47.94	19	G	35.36
Aug. 3	C	19 49 14.37	Sept. 5	G	48.62	α^3 Capricorni.		
4	G	14.45	9	G	48.13	July 22	G	20 11 3.70
7	G	14.51	Lacaille 8332.			29	C	3.78
Lacaille 8251.			Aug. 1	G	20 4 11.50	Aug. 11	C	3.66
July 22	G	19 49 35.18	3	C	11.51	Oct. 7	G	3.65
29	C	35.37	7	G	11.21	Lacaille 8372.		
Aug. 1	G	35.13	Lacaille 8335.			Aug. 21	F	20 11 12.04
Lacaille 8267.			Aug. 8	C	20 4 20.79	22	G	12.28
Aug. 8	C	19 52 54.80	11	C	20.73	Sept. 24	I	2.37
12	G	54.57	12	G	20.59			
13	I	54.89						

Day.	Observer.	h. m. s.	Day.	Observer.	h. m. s.	Day.	Observer.	h. m. s.
Lacaille 8375.			Lacaille 8431.			Lacaille 8468.		
Aug. 12	G	20 12 48.64	July 29	C	20 23 6.15	Aug. 7	G	20 29 13.57
13	I	48.72	Aug. 3	C	5.63	14	F	13.40
19	G	48.66	13	C	5.79	17	F	13.44
Lacaille 8412.			Lacaille 8437.			Lacaille 8469.		
Aug. 1	G	20 17 49.93	Aug. 7	G	20 23 19.61	Sept. 3	F	20 29 41.81
3	C	49.83	14	F	19.45	9	G	41.89
7	G	50.02	17	F	19.37	10	F	41.82
Lacaille 8411.			Lacaille 8436.			Lacaille 8488.		
Aug. 8	C	20 18 48.52	Aug. 12	G	20 23 34.18	Aug. 19	G	20 30 21.77
12	G	48.22	Sept. 18	C	33.94	22	G	21.72
13	I	48.56	19	G	34.27	24	I	21.62
ρ Capricorni.			24	I	34.53	* 8 mag. N.P.D. 160° 23'.		
Aug. 1	G	20 21 40.44	Lacaille 8445.			Sept. 29	C	20 30 43.01
6	F	40.25	Aug. 21	F	20 24 22.29	Lacaille 8467.		
17	F	40.30	24	I	21.92	Sept. 14	F	20 31 46.38
20	I	40.34	Sept. 10	F	22.06	21	F	46.24
21	F	40.30	Lacaille 8462.			Oct. 1	F	46.30
24	I	40.26	Aug. 19	G	20 25 55.02	Lacaille 8500.		
Sept. 9	G	40.34	20	I	55.23	Aug. 7	G	20 33 34.58
10	F	40.26	22	G	54.94	8	C	35.03
14	F	40.23	* 6.7 mag. N.P.D. 161° 32'.			13	I	34.73
19	G	40.34	Aug. 8	C	20 25 57.66	Lacaille 8502.		
23	C	40.22	13	I	57.76	Sept. 3	F	20 35 36.04
Oct. 1	F	40.29	Sept. 14	F	57.00	14	F	35.99
5	F	40.26	18	C	57.58	17	B	36.26
7	G	40.35	* 8.7 mag. N.P.D. 160° 23'.			19	G	36.26
9	C	40.24	Sept. 28	I	20 28 6.20	Oct. 17	B	35.97
10	G	40.22	29	C	5.78			
13	G	40.37	Oct. 1	F	5.27			
14	C	40.15						
15	G	40.22						
Lacaille 8424.								
July 29	C	20 22 1.48						
Aug. 3	C	0.70						
11	C	1.05						
19	G	0.93						
22	G	1.73						

Day.	Observer.	h. m. s.		Day.	Observer.	h. m. s.		Day.	Observer.	h. m. s.	
Lacaille 8514.				Lacaille 8577.				Lacaille 8625.			
Aug. 14	F	20	35 40.15	Aug. 19	G	20	46 16.79	Aug. 17	F	20	56 6.99
17	F		40.06	20	I		17.11	24	I		7.30
19	G		40.38	21	F		16.88	Sept. 5	G		7.36
Lacaille 8501.				Lacaille 8573.				Lacaille 8637.			
Aug. 21	F	20	35 40.97	Aug. 24	I	20	46 22.48	Sept. 17	B	20	58 36.57
Sept. 9	G		40.94	Sept. 3	F		22.37	18	C		36.72
10	F		40.94	5	G		22.76	23	C		36.54
Lacaille 8519.				Lacaille 8588.				* 7 mag. N.P.D. 160° 40'.			
Aug. 7	G	20	36 55.54	Sept. 9	G	20	47 55.12	Aug. 7	G	21	0 26.22
Sept. 18	C		55.71	10	F		55.07	19	G		26.02
21	F		55.36	14	F		55.08	61' Cygni.			
Lacaille 8521.				32 Vulpeculæ.				May 6			
Aug. 7	G	20	37 20.39	May 7	G	20	49 11.34	May 6	G	21	1 14.84
24	I		20.24	Aug. 3	C		11.37	Lacaille 8668.			
Sept. 18	C		20.20	8	C		11.33	Aug. 7	G	21	1 29.02
21	F		20.21	13	I		11.40	17	F		28.86
Lacaille 8510.				14	F		11.42	19	G		29.12
Aug. 8	C	20	37 52.11	19	G		11.32	Lacaille 8673.			
13	I		51.83	Sept. 21	F		11.37	Aug. 20	I	21	2 13.28
20	I		51.74	Lacaille 8611.				24	I		13.51
α Aquarii.				Aug. 7	G	20	49 53.64	Sept. 3	F		12.89
Aug. 3	C	20	40 51.28	17	F		53.70	B Octantis.			
Sept. 29	C		51.17	Sept. 7	I		53.99	Mar. 21	C	S.P. 21	2 16.87
Lacaille 8578.				Lacaille 8627.				24	F	S.P.	12.45
Aug. 7	G	20	46 2.92	Aug. 7	G	20	54 54.80	25	G	S.P.	12.36
13	I		2.95	19	G		54.65	26	C	S.P.	8.20
17	F		2.83	20	I		54.58	May 6	F	S.P.	12.64
				Lacaille 8623.				6	G		12.49
				Sept. 3	F	20	55 42.74	7	G	S.P.	13.34
				7	I		43.22	7	G		13.08
				9	G		43.03				
				14	F		42.81				

Day.	Observer.	h. m. s.	Day.	Observer.	h. m. s.	Day.	Observer.	h. m. s.
Lacaille 8696.			Lacaille 8744.			β Aquarii.		
Sept. 5	G	21 6 29.75	Sept. 14	F	21 13 14.21	Aug. 7	G	21 24 55.47
9	G	29.78	24	I	14.59	11	C	55.48
10	F	28.98	28	I	14.67	12	G	55.33
Lacaille 8721.			Lacaille 8757.			14	F	55.40
Sept. 3	F	21 7 32.54	Sept. 10	F	21 13 33.67	17	F	55.45
7	I	33.18	29	C	33.98	19	G	55.55
14	F	32.60	Oct. 1	F	33.80	20	I	55.40
Oct. 17	B	32.48	Lacaille 8778.			21	F	55.45
ζ Cygni.			Aug. 20	I	21 15 59.89	22	G	55.32
Sept. 24	I	21 7 34.31	Sept. 17	B	59.88	24	I	55.42
Oct. 12	I	34.40	18	C	59.93	Sept. 2	G	55.40
Lacaille 8710.			19	G	59.65	3	F	55.49
Sept. 18	C	21 8 53.64	33 Capricorni.			7	I	55.44
19	G	53.30	Oct. 19	I	21 17 0.67	9	G	55.47
23	C	53.36	Lacaille 8782.			10	F	55.41
Lacaille 8729.			Aug. 24	I	21 17 26.41	14	F	55.46
Aug. 20	I	21 10 12.82	Sept. 3	F	26.51	24	I	55.32
24	I	12.68	14	F	26.39	28	I	55.39
29	B	12.55	* 7.8 mag. N.P.D. 165° 0'.			29	C	55.46
Sept. 9	G	12.59	Sept. 5	G	21 18 12.64	Oct. 1	F	55.43
Lacaille 8745.			Lacaille 8786.			7	G	55.40
Aug. 19	G	21 12 49.35	Aug. 19	G	21 19 53.02	10	G	55.43
Sept. 3	F	49.40	Sept. 7	I	53.52	12	I	55.55
7	I	49.53	9	G	52.93	Lacaille 8842.		
Lacaille 8746.			Lacaille 8806.			Aug. 19	G	21 27 57.84
Oct. 2	I	21 13 5.07	Sept. 18	C	21 21 31.32	22	G	57.57
10	G	4.95	19	G	31.52	29	B	57.58
12	I	5.31	23	C	31.19	Sept. 10	F	57.66
						Lacaille 8828.		
						Sept. 18	C	21 28 9.55
						19	G	9.85
						23	C	9.58
						Lacaille 8835.		
						Sept. 24	I	21 28 42.78
						28	I	42.92
						29	C	42.89

Day.	Observer.	h. m. s.	Day.	Observer.	h. m. s.	Day.	Observer.	h. m. s.
Lacaille 8845.			Lacaille 8903.			Lacaille 8986.		
Oct. 1	F	21 29 43'33	Sept. 10	F	21 40 12'21	Sept. 7	I	21 55 9'91
5	F	43'53	18	C	12'40	17	B	9'74
7	G	43'77	28	I	12'29	18	C	9'77
10	G	43'54				19	G	9'83
ε Capricorni.			Lacaille 8910.			Lacaille 8988.		
Oct. 19	I	21 30 1'50	Oct. 5	F	21 43 11'50	Sept. 21	F	16'92
			6	C	11'62	23	C	17'15
			7	G	11'67	24	I	17'28
Lacaille 8860.			* 6 mag. N.P.D. 160° 42'.			Lacaille 8994.		
Aug. 22	G	21 34 15'41	Sept. 23	C	21 44 45'06	Sept. 29	C	21 57 30'12
Sept. 10	F	15'54	29	C	45'28	Oct. 1	F	29'46
14	F	15'39	Oct. 12	I	45'39	5	F	29'90
Lacaille 8869.			Lacaille 8925.			Lacaille 9002.		
Sept. 7	I	21 36 10'33	Sept. 7	I	21 44 52'72	Sept. 19	G	21 58 57'42
17	B	10'36	23	C	52'63	23	C	57'28
18	C	10'59	29	C	52'65	28	I	57'48
19	G	10'50				α Aquarii.		
ε Pegasi.			* 7 mag. N.P.D. 161° 8'.			Apr. 1	G	21 59 18'76
Aug. 19	G	21 37 59'76	Oct. 1	F	21 45 4'24	May 15	G	18'59
Sept. 3	F	59'81	9	C	5'15	27	G	18'69
5	G	59'85	10	G	4'42	Sept. 10	F	18'67
29	C	59'75				Oct. 6	C	18'74
Oct. 5	F	59'83	16 Pegasi.			9	C	18'64
23	I	59'82	Sept. 5	G	21 47 19'77	12	I	18'71
29	I	59'79	19	G	19'60	16	F	18'74
Lacaille 8894.			Oct. 20	C	19'74	22	F	18'66
Aug. 29	B	21 39 45'69	23	I	19'75	24	G	18'55
Sept. 9	G	45'42				27	G	18'75
23	C	45'51	Lacaille 8970.			29	I	18'76
24	I	45'44	Sept. 9	G	21 52 29'79	Nov. 3	G	18'63
Lacaille 8899.			10	F	29'66	12	F	18'75
Sept. 14	F	21 40 5'12	14	F	29'73	13	G	18'75
29	C	5'30				17	F	18'64
Oct. 1	F	4'85						

Day.	Observer.	h. m. s.	Day.	Observer.	h. m. s.	Day.	Observer.	h. m. s.
Lacaille 9016.			Lacaille 9079.			Lacaille 9143.		
Sept. 7	I	22 0 43'99	Sept. 29	C	22 13 13'41	Sept. 23	C	22 25 19'00
9	G	43'72	Oct. 1	F	13'23	24	I	18'98
18	C	43'94	5	F	13'10	28	I	18'99
Lacaille 9035.			* 7'6 mag. N.P.D. 163° 26'.			Lacaille 9155.		
Sept. 14	F	22 5 3'69	Sept. 29	C	22 13 17'98	Oct. 1	F	22 26 23'03
21	F	3'49	Oct. 1	F	17'59	6	C	23'31
24	I	3'83	5	F	17'46	7	G	23'48
C Octantis.			Lacaille 9082.			Lacaille 9158.		
Mar. 21	C	S.P. 22 6 50'48	Sept. 10	F	22 13 44'75	Sept. 29	C	22 26 31'28
24	F	S.P. 49'18	18	C	45'03	Oct. 9	C	30'96
25	G	S.P. 49'80	23	C	45'20	10	G	31'38
26	C	S.P. 49'23	Lacaille 9099.			η Aquarii.		
31	C	S.P. 50'15	Sept. 14	F	22 15 16'62	Apr. 8	G	22 28 52'89
Apr. 1	G	S.P. 52'00	24	I	16'92	May 27	G	53'01
May 15	G	S.P. 50'32	28	I	16'99	28	I	52'84
15	G	49'22	Lacaille 9114.			Sept. 10	F	52'94
16	F	S.P. 49'82	Sept. 18	C	22 18 20'63	21	F	52'85
27	G	S.P. 50'44	21	F	20'59	28	I	52'72
27	G	50'48	23	C	20'79	Oct. 5	F	52'81
29	C	S.P. 49'49	Lacaille 9117.			12	I	52'84
Oct. 5	F	49'04	Sept. 14	F	22 19 18'87	23	I	52'85
Nov. 13	G	51'57	Oct. 5	F	18'92	29	I	52'77
Lacaille 9062.			6	C	19'08	30	G	52'79
Sept. 10	F	22 9 9'35	Lacaille 9134.			Nov. 11	I	52'88
18	C	9'42	Sept. 10	F	22 22 42'24	13	G	52'90
28	I	9'73	18	C	42'27	Lacaille 9192.		
θ Aquarii.			21	F	42'57	Sept. 14	F	22 33 7'47
Sept. 7	I	22 10 10'86	56 Aquarii.			17	B	7'72
9	G	10'92	Oct. 20	C	22 23 32'14	18	C	7'83
14	F	11'01				23	C	7'73
19	G	10'98						
21	F	11'02						
Oct. 1	F	10'97						
6	C	10'96						

Day.	Observer.	h. m. s.	Day.	Observer.	h. m. s.	Day.	Observer.	h. m. s.
ζ Pegasi.			Lacaille 9230.			α Piscis Australis.		
Sept. 29	C	22 35 10 ^h 68	Oct. 9	C	22 40 15 ^h 02	Mar. 23	I	22 50 40 ^h 97
30	G	10 ^m 70	10	G	14 ^m 78	Apr. 8	G	41 ^m 06
Oct. 9	C	10 ^m 62	12	I	15 ^m 10	12	G	41 ^m 06
10	G	10 ^m 63	γ^s Aquarii.			15	F	40 ^m 98
15	G	10 ^m 68	Oct. 20 C 22 42 54 ^m 98			20	F	40 ^m 98
16	F	10 ^m 56	Lacaille 9262.			May 21	I	41 ^m 05
20	C	10 ^m 62	Sept. 18 C 22 44 47 ^m 61			Sept. 14	F	40 ^m 96
23	I	10 ^m 58	21	F	47 ^m 42	21	F	40 ^m 97
29	I	10 ^m 79	Lacaille 9276.			23	C	40 ^m 98
Lacaille 9214.			Sept. 24 I 22 45 51 ^m 78			24	I	40 ^m 91
Sept. 24	I	22 36 52 ^m 81	28	I	51 ^m 48	30	G	40 ^m 89
28	I	52 ^m 85	29	C	51 ^m 53	Oct. 7	G	41 ^m 05
29	C	52 ^m 45	Lacaille 9279.			10	G	40 ^m 91
* 7 mag. N.P.D. 160° 11'.			Oct. 1 F 22 46 20 ^m 75			20	C	40 ^m 97
Sept. 18	C	22 37 53 ^m 44	6	C	21 ^m 08	29	I	40 ^m 89
23	C	53 ^m 38	7	G	21 ^m 20	Lacaille 9337.		
Oct. 1	F	52 ^m 70	74 Aquarii.			Sept. 14	F	22 56 30 ^m 39
Lacaille 9220.			Nov. 17 F 22 46 50 ^m 44			17	B	30 ^m 55
Sept. 14	F	22 38 34 ^m 50	Lacaille 9291.			18	C	30 ^m 61
18	C	34 ^m 57	Oct. 9 C 22 47 51 ^m 02			21	F	30 ^m 48
23	C	34 ^m 86	10	G	50 ^m 77	α Pegasi.		
Oct. 6	C	34 ^m 67	12	I	51 ^m 16	Apr. 15	G	22 58 29 ^m 10
Lacaille 9227.			Lacaille 9293.			May 21	I	29 ^m 03
Sept. 21	F	22 39 5 ^m 30	Oct. 6 C 22 49 7 ^m 38			Sept. 30	G	29 ^m 17
Oct. 5	F	5 ^m 21	13	G	7 ^m 49	Oct. 1	F	29 ^m 11
7	C	5 ^m 50	16	F	7 ^m 36	5	F	29 ^m 07
Lacaille 9232.			Lacaille 9358.			13	G	29 ^m 14
Oct. 13	G	22 39 22 ^m 79	Sept. 18 C 22 59 46 ^m 72			15	G	29 ^m 02
14	C	22 ^m 71	23	C	46 ^m 77	16	F	29 ^m 00
15	G	22 ^m 58	28	I	46 ^m 59	Nov. 16	I	29 ^m 09

Day.	Observer.	h. m. s.	Day.	Observer.	h. m. s.	Day.	Observer.	h. m. s.
Lacaille 9374.			♎ Aquarii.			Lacaille 9492.		
Sept. 21	F	23 1 38.26	Nov. 17	F	23 11 21.10	Sept. 21	F	23 23 27.09
29	C	38.37				Oct. 13	G	27.36
Oct. 1	F	38.41	Lacaille 9450.			15	G	27.26
Lacaille 9375.			Sept. 18	C	23 16 20.01	16	F	27.29
Oct. 6	C	23 2 6.72				21	F	19.61
7	G	6.94	23	C	20.08	Lacaille 9493.		
9	C	6.60	Lacaille 9459.			Sept. 28	I	23 24 30.63
Lacaille 9390.			Sept. 29	C	23 18 50.80	29	C	30.53
Sept. 23	C	23 5 54.66				Oct. 3	C	51.11	Oct. 3	C	30.73
29	C	54.19	5	F	50.53	9	C	31.12
Oct. 6	C	54.20	6	C	50.73	12	I	30.67
r Octantis.			Lacaille 9469.			14	C	30.55
Mar. 21	C	S.P. 23 8 7.44	Sept. 18	C	23 19 37.84	Nov. 4	C	30.85
24	F	S.P. 2.65				23	C	37.88	Lacaille 9505.
25	G	S.P. 3.68	Oct. 1	F	37.57	Sept. 23	C	23 26 5.83
26	C	S.P. 3.95	♋ Piscium.			Oct. 6	C	6.04
Apr. 7	C	S.P. 3.83	Oct. 21	C	23 20 28.39	9	C	5.87
15	C	S.P. 5.54				22	F	28.34	22	F	5.92
Lacaille 9402.			23	I	28.36	Lacaille 9511.		
Sept. 21	F	23 8 30.95	27	G	28.54	Oct. 16	F	23 27 2.33
28	I	31.45	Nov. 2	I	28.36	23	I	2.51
Oct. 7	G	31.26	Lacaille 9487.			24	G	2.39
Lacaille 9418.			Oct. 3	C	23 23 10.28	Lacaille 9518.		
Sept. 29	C	23 10 30.69				9	C	10.40	Sept. 21	F	23 28 0.19
Oct. 3	C	30.85	10	G	10.16	Oct. 10	G	0.24
5	F	30.42	14	C	10.08	13	G	0.37
γ Piscium.			28	C	10.72	Lacaille 9531.		
Oct. 14	C	23 10 37.93	29	I	10.69	Sept. 29	C	23 30 47.68
27	G	37.91	Nov. 4	C	10.43	Oct. 1	F	47.42
Nov. 2	I	38.01				3	C	47.85
16	I	38.04						

Day.	Observer.	h. m. s.		Day.	Observer.	h. m. s.		Day.	Observer.	h. m. s.	
Lacaille 9537.				Lacaille 9572.				Lacaille 9608.			
Oct. 6	C	23 32	7 ⁸⁸	Sept. 29	C	23 37	19 ⁶³	Oct. 5	F	23 43	39 ³⁹
9	C		8 ⁰¹	Oct. 28	C		20 ¹³	6	C		39 ⁶⁰
10	G		7 ⁶⁷	29	I		20 ⁰¹	9	C		39 ⁷⁰
♈ Piscium.				Lacaille 9580.				Lacaille 9627.			
Sept. 28	I	23 33	28 ¹⁴	Oct. 31	C	23 39	22 ⁶⁰	Sept. 29	C	23 45	54 ⁹⁹
Oct. 13	G		28 ³⁹	Nov. 2	I		22 ⁷⁶	Oct. 1	F		54 ⁸³
24	G		28 ¹⁰	3	G		22 ⁵²	3	C		55 ³⁷
30	G		28 ³³	Lacaille 9581.				24 Piscium.			
Nov. 2	I		28 ¹²	Oct. 10	G	23 39	55 ⁴⁰	Nov 28	G	23 46	27 ²⁵
3	G		28 ⁰⁷	Nov. 4	C		55 ²⁷	Lacaille 9661.			
Lacaille 9562.				6	F		55 ⁴⁴	Oct. 5	F	23 50	57 ¹⁴
Oct. 1	F	23 36	4 ²⁵	Lacaille 9584.				7	G		57 ³³
3	C		4 ⁴⁴	Oct. 13	G	23 40	18 ⁷⁷	9	C		57 ⁴²
9	C		4 ²⁷	14	C		18 ⁶¹	♍ Piscium.			
Lacaille 9558.				15	G		18 ⁶²	June 23	G	23 52	50 ⁴¹
Oct. 13	G	23 36	8 ⁶⁶	Lacaille 9588.				Sept. 23	C		50 ⁴⁶
14	C		8 ⁴⁹	Oct. 27	G	23 40	24 ⁶³	Oct. 1	F		50 ⁴³
15	G		8 ⁸³	29	I		24 ⁵⁸	12	I		50 ⁴⁷
Lacaille 9566.				30	G		24 ⁴⁵	13	G		50 ²⁹
Oct. 23	I	23 37	11 ⁴⁴	Lacaille 9592.				14	C		50 ⁵⁵
24	G		11 ⁴⁴	Oct. 1	F	23 41	3 ⁶⁶	23	I		50 ⁵¹
27	G		11 ²⁶	16	F		3 ⁶³	24	G		50 ⁵⁶
Lacaille 9571.				24	G		3 ⁸⁹	30	G		50 ⁵³
Sept. 29	C	23 37	14 ⁵⁶	♎ Sculptoris.				Nov. 3	G		50 ⁴⁷
Oct. 5	F		14 ²⁹	Sept. 23	C	23 42	21 ⁵⁷	4	C		50 ⁴⁴
6	C		14 ⁵⁶	Nov. 10	G		21 ²⁹	10	G		50 ⁵⁷
12	I		14 ⁵⁷	18	G		21 ⁵²	18	G		50 ⁶⁰
16	F		14 ³⁶	Lacaille 9678.				28	F		50 ⁴⁴
28	C		14 ⁰⁵	Sept. 29	C	23 53	21 ¹⁷	Lacaille 9678.			
				Oct. 3	C		21 ²¹	Sept. 29	C	23 53	21 ¹⁷
				6	C		21 ¹²	Oct. 3	C		21 ²¹
								6	C		21 ¹²

ROYAL OBSERVATORY,
CAPE OF GOOD HOPE.

SEPARATE RESULTS

OF

MEAN N.P.D. OF STARS

OBSERVED IN THE YEAR

1874

R.A. 0^h. 0^m. to 0^h. 19^m.

Day.	Observer.	o . . .	Day.	Observer.	o . . .	Day.	Observer.	o . . .
<i>α Andromedæ.</i>			<i>ο Octantis.—Continued.</i>			<i>Lacaille 53.</i>		
Dec. 7	F	61 36 20.07	Nov. 2	I	179 3 47.45	Oct. 9	C	160 19 27.54
<i>Lacaille 9743.</i>			4	C	50.03	10	G	29.52
Oct. 6	C	164 56 23.45	11	I	48.73	12	I	27.87
9	C	22.99	14	B	47.19	13	G	29.12
10	G	22.76	16	I	48.52	<i>Lacaille 80.</i>		
<i>Lacaille 9755.</i>			17	F	47.94	Oct. 9	C	162 46 46.26
Sept. 29	C	163 55 35.31	18	G	49.43	15	G	47.92
Oct. 1	F	35.29	19	C	49.28	<i>β Hydri.</i>		
3	C	35.22	20	G	49.05	Oct. 26	B	167 57 51.06
<i>γ Pegasi.</i>			21	B	49.23	Nov. 12	F	51.33
Oct. 14	C	75 31 0.09	23	I	48.28	13	G	50.68
22	F	0.89	27	G	46.50	14	B	49.52
Nov. 12	F	2.26	Dec. 3	I	48.28	16	I	49.85
19	C	0.74	4	C	48.23	17	F	50.32
<i>Lacaille 32.</i>			5	G	48.83	18	G	50.42
Oct. 5	F	161 5 36.37	6	G	50.65	19	C	50.28
9	C	35.43	<i>ο Octantis S.P.</i>			20	G	50.79
10	G	37.05	May 1	I	179 3 49.30	21	B	50.26
17	B	37.20	4	I	52.35	23	I	51.05
<i>ο Octantis.</i>			June 17	I	48.94	26	I	51.27
June 18	G	179 3 47.78	18	C	48.31	27	G	49.14
19	G	49.02	19	F	48.34	28	F	49.23
23	G	47.59	23	G	48.64	30	C	50.92
25	I	48.64	24	C	47.54	Dec. 2	F	51.05
26	C	48.20	25	I	48.43	3	I	50.24
27	G	49.45	26	F	47.35	4	C	50.39
July 6	G	47.15	27	G	49.55	5	G	49.89
Oct. 6	C	49.71	<i>ι Ceti.</i>			6	G	50.67
7	G	47.76	Dec. 10	C	99 30 24.73	7	F	49.64
31	C	47.15	<i>Lacaille 40.</i>			8	I	49.55
			Oct. 14	C	155 36 53.89	9	G	49.78
			15	G	55.82	10	C	50.22
			16	F	55.99	11	I	51.28
						12	G	50.62
						14	F	51.10
						16	I	50.32
						17	F	50.09
						19	G	51.11
						22	F	51.56
						23	G	50.20

R.A. 0^h . 19^m . to 0^h . 49^m .

Day.	Observer.	° ' "	Day.	Observer.	° ' "	Day.	Observer.	° ' "
β Hydri S.P.			Lacaille 171.			Lacaille 209.		
Nov. 22	G	167 57 51'55	Oct. 27	G	164 39 8'28	Oct. 28	C	164 57 15'22
28	G	49'90	28	C	9'05	31	C	14'84
29	G	49'15	29	I	8'21	Nov. 2	I	14'59
Dec. 4	G	51'30	Lacaille 173.			Lacaille 211.		
6	G	48'91	Oct. 9	C	163 49 50'27	Oct. 9	C	161 51 31'08
7	G	48'87	10	G	52'08	13	G	31'94
14	G	49'40	26	B	53'30	14	C	31'05
18	G	48'54	30	G	52'14	B.A.C. 221.		
21	I	48'90	μ Phœnicis.			Nov. 19	C	85 22 3'51
Lacaille 93.			Nov. 12	F	136 46 36'58	δ Piscium.		
Oct. 10	G	160 0 15'46	Lacaille 179.			Dec. 4	C	83 6 3'67
13	G	16'63	Oct. 13	G	158 52 43'66	Lacaille 244.		
14	C	14'92	14	C	43'01	Oct. 9	C	161 50 18'69
12 Ceti.			15	G	42'70	13	G	20'55
Nov. 30	C	94 39 12'83	Lacaille 188.			14	C	19'00
Dec. 7	F	14'00	Oct. 12	I	156 9 38'52	Lacaille 250.		
Lacaille 139.			16	F	39'43	Oct. 10	G	160 11 12'03
Oct. 9	C	161 57 39'80	22	F	39'02	15	G	12'01
10	G	40'79	β Ceti.			16	F	12'06
12	I	37'82	Dec. 3	I	108 40 42'67	* 6.7 mag. R.A. 0^h . 47^m . 40^s .		
Lacaille 151.			Lacaille 191.			Oct. 10	G	160 11 9'68
Oct. 13	G	155 49 6'81	Oct. 24	G	156 17 57'89	15	G	10'41
14	C	4'84	27	G	58'59	16	F	8'90
15	G	6'12	30	G	58'35	B.A.C. 257.		
Lacaille 154.			Lacaille 206.			Nov. 16	S	98 1 43'71
Oct. 16	F	160 7 37'46	Oct. 15	G	156 18 49'76			
22	F	37'16	Nov. 3	G	49'81			
24	G	37'71	4	C	49'81			

R.A. 0^h. 49^m. to 1^h. 12^m.

Day.	Observer.	° ' "	Day.	Observer.	° ' "	Day.	Observer.	° ' "
Lacaille 258.			Lacaille 299.			B.A.C. 374.		
Oct. 14	C	156 8 29'69	Oct. 31	C	162 13 35'11	Nov. 27	G	91 38 54'45
22	F	31'27	Nov. 2	I	33'83	Lacaille 345.		
24	G	30'97	3	G	34'21	Oct. 24	G	164 34 37'36
Lacaille 262.			Lacaille 298.			27	G	37'37
Oct. 27	G	160 12 31'99	Oct. 28	C	156 8 2'37	28	C	38'50
28	C	32'16	29	I	2'60	Lacaille 349.		
29	I	31'55	30	G	0'96	Oct. 14	C	161 32 58'46
Lacaille 263.			73 Piscium.			29	I	58'62
Oct. 26	B	159 18 37'18	Nov. 19	C	85 1 10'69	30	G	59'00
30	G	39'11	Lacaille 314.			Lacaille 353.		
31	C	38'91	Oct. 24	G	162 24 39'35	Oct. 31	C	159 29 20'76
Nov. 2	I	37'87	26	B	41'21	Nov. 2	I	22'03
Lacaille 272.			27	G	39'20	3	G	21'64
Oct. 13	G	157 14 31'13	28	C	41'31	Lacaille 356.		
15	G	30'12	Lacaille 315.			Oct. 16	F	159 32 45'32
28	C	28'21	Oct. 13	G	161 36 30'21	22	F	45'51
Nov. 27	G	30'20	14	C	30'24	31*	C	$\omega = \frac{1}{2}$ 42'63
B.A.C. 274.			15	G	31'34	Lacaille 359.		
Dec. 17	F	84 11 48'88	16	F	31'29	Nov. 4	C	158 5 50'25
♄ Piscium.			30	G	31'45	11	I	50'29
Oct. 23	I	82 47 21'09	31	C	30'21	12	F	49'31
Dec. 2	F	18'48	Lacaille 332.			Lacaille 361.		
4	C	19'33	Oct. 15	G	163 37 42'34	Nov. 13	G	157 3 46'58
Lacaille 292.			16	F	42'29	14	B	46'77
Oct. 22	F	163 22 32'37	22	F	41'42	16	I	46'06
24	G	32'91	ζ ¹ Piscium.			17	F	47'74
27	G	33'42	Oct. 23	I	83 5 30'59			
			Dec. 3	I	29'04			
			17	F	29'51			

* Lac. 356, Oct. 31. Observation made 7 revolutions of the micrometer out of the centre of the field.

R.A. 1^h. 13^m. to 1^h. 47^m.

Day.	Observer.	° ' "	Day.	Observer.	° ' "	Day.	Observer.	° ' "
Lacaille 363.			Lacaille 399.			α Eridani.		
Nov. 18	G	155 52 35.03	Oct. 27	G	160 22 41.95	Nov. 17	F	147 52 38.63
19	C	33.90	30	G	41.90	19	C	39.18
20	G	32.42	Nov. 2	I	42.26	30	C	39.35
Lacaille 366.			Lacaille 401.			Dec. 4	C	39.57
Oct. 27	G	157 46 30.47	Oct. 28	C	159 44 27.71	7	F	39.75
28	C	31.64	Nov. 16	I	26.00	Lacaille 497.		
30	G	30.24	18	G	26.94	Oct. 22	F	157 11 50.79
Lacaille 380.			Lacaille 417.			23	I	51.09
Nov. 21	B	161 46 50.21	Oct. 31	C	161 19 56.67	27	G	49.15
23	I	52.48	Nov. 4	C	57.70	Lacaille 499.		
28	F	50.61	13	G	57.03	Oct. 28	C	156 14 45.43
Dec. 3	I	50.70	Lacaille 421.			30	G	45.84
Lacaille 383.			Nov. 17	F	162 58 53.79	31	C	45.10
Oct. 16	F	159 33 51.11	19	C	52.75	ν Piscium.		
22	F	49.68	20	G	52.80	Oct. 13	G	85 9 3.03
23	I	51.03	Lacaille 409.			o Piscium.		
Lacaille 393.			Oct. 15	G	155 1 30.31	Nov. 20	G	81 28 37.83
Oct. 29	I	163 24 39.07	22	F	31.74	Lacaille 546.		
Nov. 3	G	36.88	Nov. 3	G	30.83	Oct. 23	I	164 10 60.74
4	C	38.20	Lacaille 443.			26	B	61.93
13	G	36.99	Oct. 22	F	162 21 32.15	27	G	60.43
Lacaille 391.			23	I	32.38	28	C	59.60
Nov. 12	F	157 2 36.40	26	B	32.99	Lacaille 567.		
17	F	37.46	27	G	31.90	Oct. 28	C	163 2 12.98
19	C	36.88	28	C	35.38	29	I	12.63
θ Cetī.			η Piscium.			30	G	13.27
Nov. 30	C	98 50 2.66	Dec. 11	I	75 18 15.74	31	C	12.85
Dec. 4	C	4.09						

R.A. 1^h. 48^m. to 2^h. 21^m.

Day.	Observer.	o . .	Day.	Observer.	o . .	Day.	Observer.	o . .
Lacaille 581.			Lacaille 643.			67 Ceti.		
Nov. 3	G	164 23 39'19	Oct. 26	B	161 1 35'08	Nov. 28	F	97 0 14'15
4	C	40'25	31	C	34'17	Dec. 7	F	13'77
11	I	40'91	Nov. 2	I	33'08	Lacaille 701.		
Lacaille 577.			3	G	32'73	Oct. 31	C	158 25 47'38
Oct. 23	I	158 33 55'74	Lacaille 642.			Nov. 16	I	48'72
27	G	56'29	Oct. 27	G	155 44 35'66	18	G	49'01
Nov. 2	I	55'44	28	C	35'89	Lacaille 706.		
Lacaille 594.			30	G	36'24	Nov. 3	G	158 19 51'36
Oct. 30	G	158 16 4'36	Lacaille 665.			19	C	51'49
Nov. 4	C	4'34	Nov. 4	C	162 12 33'77	20	G	51'13
12	F	4'01	11	I	33'76	Lacaille 714.		
B.A.C. 609.			13	S	33'79	Nov. 4	C	160 1 5'25
Oct. 24	G	78 19 2'49	Lacaille 664.			12	F	6'09
Lacaille 601.			Oct. 29	I	156 32 40'58	13	G	5'11
Oct. 28	C	159 0 29'00	Nov. 12	F	40'43	Lacaille 736.		
31	C	28'08	16	I	39'63	Oct. 29	I	158 39 44'38
Nov. 3	G	29'73	Lacaille 676.			30	G	45'06
Lacaille 616.			Oct. 30	G	154 56 59'55	31	C	44'40
Oct. 27	G	156 40 39'16	31	C	59'68	Lacaille 747.		
29	I	39'58	Nov. 3	G	59'97	Nov. 4	C	159 13 60'43
30	G	39'51	Lacaille 691.			11	I	59'65
α Arietis.			Oct. 29	I	156 44 41'06	12	F	59'45
Dec. 8	I	67 8 4'50	Nov. 11	I	41'82	ξ ³ Ceti.		
			12	F	41'72	Dec. 9	G	82 6 24'49
			Lacaille 698.					
			Nov. 4	C	161 32 29'62			
			13	G	29'26			
			17	F	29'79			

R.A. 2^h. 22^m. to 2^h. 41^m.

Day.	Observer.	° ' "	Day.	Observer.	° ' "	Day.	Observer.	° ' "
Lacaille 774.			Lacaille 807.			Lacaille 866.		
Nov. 19	C	164 12 60'23	Nov. 16	I	158 31 27'34	Nov. 17	F	156 39 23'88
21	B	60'95	18	G	27'31	19	C	23'14
23	I	60'13	23	I	26'48	23	I	23'15
28	F	59'87	γ Ceti.			Lacaille 877.		
Lacaille 769.			Dec. 24	I	84 57 27'97	Dec. 7	F	161 13 15'84
Nov. 13	G	157 3 42'02	Lacaille 836.			8	I	17'30
16	I	41'34	Nov. 13	G	162 59 50'10	12	G	15'01
17	F	41'90	17	F	50'62	Lacaille 871.		
Lacaille 777.			30	C	49'02	Dec. 5	G	158 48 25'95
Oct. 30	G	160 40 8'53	Lacaille 839.			6	G	25'89
Nov. 3	G	8'95	Nov. 4	C	162 53 57'95	9	G	27'19
18	G	8'65	28	F	57'80	Lacaille 880.		
Lacaille 778.			δ Ceti.			Dec. 11	I	159 46 14'44
Nov. 4	C	159 12 4'38	Dec. 24	I	90 12 59'31	16	I	12'65
12	I	4'72	Lacaille 856.			19	G	13'80
Dec. 3	I	4'41	Dec. 3	I	164 34 23'40	Lacaille 882.		
Lacaille 790.			4	C	22'90	Dec. 10	C	161 59 46'48
Nov. 19	C	160 5 17'23	5	G	23'10	14	F	45'85
28	F	17'01	Lacaille 854.			17	F	44'57
30	C	16'08	Nov. 11	I	157 50 40'66	Lacaille 904.		
29 Arietis.			12	F	39'62	Nov. 18	G	164 51 34'39
Oct. 24	G	75 31 27'30	18	G	39'46	Dec. 3	I	31'61
Lacaille 800.			Lacaille 867.			12	G	33'24
Nov. 4	C	159 10 9'64	Nov. 13	G	157 29 50'41	Lacaille 893.		
11	I	9'69	Dec. 2	F	50'47	Nov. 28	F	157 14 41'34
13	G	10'29	4	C	49'78	Dec. 2	F	41'32
						4	C	41'28

R.A. 2^h. 41^m. to 3^h. 5^m.

Day.	Observer.	o' ' "	Day.	Observer.	o' ' "	Day.	Observer.	o' ' "
Lacaille 898.			Lacaille 943.			Lacaille 997.		
Dec. 7	F	159 41 41'13	Nov. 11	I	158 2 24'72	Nov. 19	C	160 10 39'72
8	I	39'29	12	F	24'16	30	C	39'57
9	G	38'30	13	G	24'32	Dec. 2	F	38'98
Lacaille 901.			Lacaille 948.			Lacaille 994.		
Nov. 30	C	161 44 17'73	Jan. 7	F	155 58 7'18	Jan. 7	F	150 41 5'66
Dec. 5	G	16'81	Oct. 26	F	6'41	Nov. 16	I	7'96
6	G	16'51	Nov. 3	G	6'17	18	G	7'32
π Arietis.			Dec. 5			Lacaille 1001.		
Nov. 21	F	73 3 40'11	Lacaille 1884 S.P.			Dec. 3	I	162 23 41'90
Lacaille 907.			July 28	G	178 56 19'47	5	G	39'77
Nov. 17	F	158 8 48'34	Lacaille 1146.			6	G	41'57
19	C	47'92	Dec. 24	I	175 32 51'50	Lacaille 1031.		
23	I	48'08	Lacaille 954.			Oct. 26	F	162 29 21'03
σ Arietis.			Nov. 18	G	155 24 50'98	Nov. 30	C	20'99
Nov. 4	C	75 26 17'45	23	I	50'20	Dec. 15	G	20'81
Dec. 19	G	17'31	30	C	50'41	Lacaille 1047.		
Lacaille 916.			Lacaille 957.			Dec. 7	F	164 48 23'39
Jan. 7	F	161 45 48'22	Dec. 2	F	154 56 47'29	8	I	22'13
Nov. 13	G	49'62	3	I	47'08	16	I	22'38
18	G	49'30	4	C	46'24	Lacaille 1043.		
ρ ³ Arietis.			Lacaille 970.			Dec. 11	I	163 57 22'67
Nov. 21	F	72 10 49'53	Jan. 7	F	146 3 57'77	12	G	23'00
Lacaille 952.			Nov. 18	G	57'29	17	F	22'60
Nov. 17	F	164 21 44'92	Dec. 4	C	56'92	Lacaille 1022.		
19	C	45'16	α Ceti.			Nov. 28	F	156 24 4'39
28	F	43'93	Nov. 4	C	86 24 21'44	Dec. 14	F	5'68
						21	I	5'97

R.A. 3^h. 6^m. to 3^h. 27^m.

Day.	Observer.	° ' "	Day.	Observer.	° ' "	Day.	Observer.	° ' "
Lacaille 1046.			Lacaille 1069.			Lacaille 1098.		
Oct. 26	F	162 30 25'90	Jan. 7	F	154 54 23'67	Nov. 27	G	156 10 59'19
Nov. 18	G	25'74	Dec. 8	I	23'42	Dec. 2	F	61'51
19	C	25'95	14	F	23'27	14	F	59'78
Dec. 2	F	26'21	Lacaille 1082.			17	F	60'41
9	G	24'36	Lacaille 1118.			Lacaille 1126.		
Lacaille 1025.			Nov. 16	I	160 14 47'83	Jan. 15	F	158 59 10'17
Dec. 4	C	155 2 49'50	30	C	47'17	Dec. 4	C	9'00
6	G	50'07	Dec. 4	C	47'15	6	G	10'15
19	G	50'44	17	F	47'73	Lacaille 1132.		
Lacaille 1035.			7 ^a Arietis.			Nov. 19	C	160 4 3'70
Jan. 7	F	159 44 43'32	Nov. 22	F	69 42 36'45	28	F	2'86
15	F	43'51	Lacaille 1092.			Dec. 3	I	3'43
Dec. 5	G	42'15	Jan. 15	F	157 23 4'69	Lacaille 1139.		
Lacaille 1054.			Dec. 3	I	5'63	Jan. 16	I	159 46 39'04
Nov. 16	I	157 58 51'48	6	G	5'57	Nov. 16	I	38'88
30	C	49'84	Lacaille 1094.			17	F	37'76
Dec. 3	I	50'68	Dec. 7	F	158 37 4'86	Lacaille 1143.		
Lacaille 1075.			9	G	5'87	Jan. 7	F	153 22 56'08
Dec. 7	F	164 46 44'85	12	G	4'95	13	I	55'91
9	G	44'13	Lacaille 1109.			15	F	56'56
12	G	45'32	Dec. 15	G	164 0 33'36			
Lacaille 1066.			16	I	32'40			
Nov. 18	G	156 17 49'45	19	G	33'23			
Dec. 5	G	47'60	Lacaille 1097.					
6	G	48'97	Nov. 17	F	156 20 28'43			
Lacaille 1085.			18	G	29'17			
Dec. 10	C	164 29 13'83	19	C	28'77			
11	I	12'97						
15	G	12'70						
16	I	11'93						

R.A. 3^h. 29^m. to 3^h. 49^m.

Day.	Observer.	o . .	Day.	Observer.	o . .	Day.	Observer.	o . .
Lacaille 1164.			δ Eridani.			Lacaille 1295.		
Nov. 18	G	156 54 58.37	Dec. 15	G	100 11 28.82	Jan. 19	I	164 24 1.18
27	G	60.17	16	I	26.86	Dec. 5	G	1.26
28	F	60.28				6	G	2.66
Lacaille 1178.			η Tauri.			Lacaille 1277.		
Nov. 19	C	157 9 6.78	Dec. 7	F	66 17 9.27	Dec. 7	F	156 53 29.02
23	I	6.81				8	I	29.61
30	C	7.50	Lacaille 1245.			9	G	28.29
Lacaille 1184.			Jan. 15	F	156 52 39.41	Lacaille 1298.		
Dec. 3	I	157 50 17.36	Nov. 18	G	38.87	Jan. 13	I	162 2 52.36
4	C	16.68	21	B	40.65	14	C	53.13
5	G	17.30	27	G	39.72	15	F	51.19
Lacaille 1187.			Lacaille 1243.			Lacaille 1414 S.P.		
Dec. 8	I	155 7 42.78	Jan. 5	I	154 35 39.82	Aug. 14	F	175 7 40.55
11	I	41.25	9	I	41.37	15	G	41.03
12	G	41.58	13	I	41.37	17	F	41.03
Lacaille 1188.			Lacaille 1253.			Lacaille 1301.		
Dec. 6	G	156 10 59.50	Jan. 16	I	155 12 13.18	Nov. 30	C	160 16 19.59
7	F	58.98	Nov. 30	C	13.68	Dec. 9	G	18.32
9	G	57.93	Dec. 3	I	13.71	11	I	20.56
Lacaille 1192.			Lacaille 1283.			Lacaille 1322.		
Jan. 7	F	147 41 45.17	Nov. 18	G	160 24 47.95	Jan. 23	F	164 37 30.12
Nov. 18	G	47.70	27	G	48.30	Dec. 5	G	27.19
27	G	46.10	Dec. 4	C	49.71	7	F	29.21
Lacaille 1218.			Lacaille 1285.			33 Tauri.		
Nov. 30	C	158 50 58.77	Nov. 18	G	160 24 39.80	Nov. 22	F	67 11 31.89
Dec. 4	C	57.70	27	G	40.31			
5	G	57.72	Dec. 4	C	37.31			

R.A. 3^h. 49^m. to 4^h. 18^m.

Day.	Observer.	° ' "	Day.	Observer.	° ' "	Day.	Observer.	° ' "		
Lacaille 1308.			Lacaille 1383.			Lacaille 1453.				
Nov. 18	G	156 43 19'99	Dec. 5	G	159 17 28'86	Jan. 17	C	163 8 5'89		
Dec. 3	I	20'87		6		G	19	I	5'13	
4	C	20'37		7		F	20	F	7'11	
γ ¹ Eridani.			Lacaille 1375.			X ¹ Tauri.				
Dec. 16	I	103 52 5'59	Jan. 7	F	148 49 6'90	Oct. 26	F	64 40 11'92		
Lacaille 1321.				19			I		4'37	
Jan. 7	F	151 16 26'83		Nov. 27		G	6'63		Lacaille 1432.	
12	F	25'95	Lacaille 1405.			Jan. 7	F	146 29 33'99		
15	F	23'93	Jan. 9	I	160 12 23'18	9	I	33'05		
36 Tauri.				14		C	12	F	33'26	
Oct. 26	F	64 14 33'06		16		I	26'17	Lacaille 1445.		
			Lacaille 1401.			Jan. 23	F	156 13 9'06		
Jan. 7			F	156 14 13'25	Nov. 18	G	7'42	27	G	6'71
14	C	13'83	27	G						
16	I	13'00	Lacaille 1443.							
Lacaille 1362.			Lacaille 1421.			Jan. 5		I	153 33 40'74	
Jan. 13	I	158 41 56'83	Jan. 5	I	161 58 13'41	21	C	42'37		
15	F	55'86		12		F	13'37	22	G	41'81
17	C	56'80		13		I	13'85			
Lacaille 1347.			γ Tauri.			Nov. 14	B	160 1 59'53		
Jan. 5	I	149 0 49'69	Dec. 14	F	74 40 42'68	Dec. 3	I	58'68		
9	I	51'82				4	C	58'61		
20	F	52'38				5	G	58'67		
Lacaille 1380.			Lacaille 1442.			Lacaille 1481.				
Nov. 14	B	161 30 57'98	Jan. 14	C	160 44 14'16	Jan. 13	I	162 18 10'02		
28	F	57'56		15		F	12'46	Dec. 6	G	10'29
30	C	58'34		16		I	14'00		7	F
Dec. 3	I	58'50								

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1877. January 2

10 4^b. 18^m.

Day.		Observer.	o i .	
1873.		Lacaille 1453.		
Jan. 17	28'86	C	163	8 5'89
	30'92	I		5'13
	31'63	F		7'11
1874.		X ¹ Tauri.		
Oct. 26	6'90	F	64	40 11'92
	4'37			
	6'63			
1875.		Lacaille 1432.		
Jan. 7	33'18	F	146	29 33'99
	34'43	I		33'05
	36'17	F		33'26
1876.		Lacaille 1445.		
Jan. 23	39'46	F	156	13 9'06
Nov. 18	38'55	G		7'42
	38'33	G		6'71
1877.		Lacaille 1443.		
Jan. 5	33'41	I	153	33 40'74
	33'37	C		42'37
	35'85	G		41'81
1878.		Lacaille 1460.		
Nov. 14	42'08			1 59'53
Dec. 3				
1879.		Lacaille 1481.		
Jan. 13	41'16			
Dec. 6	41'46			
	44'00	F		

Separate Results for Mean N.P.D. of Stars observed

R.A. 0^h. 49^m. to 1^h. 12^m.

Day.	Observer.	o' ' "	Day.	Observer.	o' ' "	Day.	Observer.	o' ' "
Lacaille 258.			Lacaille 299.			B.A.C. 374.		
Oct. 14	C	156 8 29.69	Oct. 31	C	162 13 35.11	Nov. 27	G	91 38 54.45
22	F	31.27	Nov. 2	I	33.83	Lacaille 345.		
24	G	30.97	3	G	34.21	Oct. 24	G	164 34 37.36
Lacaille 262.			Lacaille 298.			27	G	37.37
Oct. 27	G	160 12 31.99	Oct. 28	C	156 8 2.37	28	C	38.50
28	C	32.16	29	I	2.60	Lacaille 349.		
29	I	31.55	30	G	0.96	Oct. 14	C	161 32 58.46
Lacaille 263.			73 Piscium.			29	I	58.62
Oct. 26	B	159 18 37.18	Nov. 19	C	85 1 10.69	30	G	59.00
30	G	39.11	Lacaille 314.			Lacaille 353.		
31	C	38.91	Oct. 24	G	162 24 39.35	Oct. 31	C	159 29 20.76
Nov. 2	I	37.87	26	B	41.21	Nov. 2	I	22.03
Lacaille 272.			27	G	39.20	3	G	21.64
Oct. 13	G	157 14 31.13	28	C	41.31	Lacaille 356.		
15	G	30.12	Lacaille 315.			Oct. 16	F	159 32 45.32
28	C	28.21	Oct. 13	G	161 36 30.21	22	F	45.51
Nov. 27	G	30.20	14	C	30.24	31*	C	$\omega = \frac{1}{2}$ 42.63
B.A.C. 274.			15	G	31.34	Lacaille 359.		
Dec. 17	F	84 11 48.88	16	F	31.29	Nov. 4	C	158 5 50.25
ε Piscium.			30	G	31.45	11	I	50.29
Oct. 23	I	82 47 21.09	31	C	30.21	12	F	49.31
Dec. 2	F	18.48	Lacaille 332.			Lacaille 361.		
4	C	19.33	Oct. 15	G	163 37 42.34	Nov. 13	G	157 3 46.58
Lacaille 292.			16	F	42.29	14	B	46.77
Oct. 22	F	163 22 32.37	22	F	41.42	16	I	46.06
24	G	32.91	ζ ¹ Piscium.			17	F	47.74
27	G	33.42	Oct. 23	I	83 5 30.59			
			Dec. 3	I	29.04			
			17	F	29.51			

* Lac. 356, Oct. 31. Observation made 7 revolutions of the micrometer out of the centre of the field.

R.A. 1^h. 13^m. to 1^h. 47^m.

Day.	Observer.	° ' "	Day.	Observer.	° ' "	Day.	Observer.	° ' "
Lacaille 363.			Lacaille 399.			α Eridani.		
Nov. 18	G	155 52 35.03	Oct. 27	G	160 22 41.95	Nov. 17	F	147 52 38.63
19	C	33.90	30	G	41.90	19	C	39.18
20	G	32.42	Nov. 2	I	42.26	30	C	39.35
Lacaille 366.			Lacaille 401.			Dec. 4	C	39.57
Oct. 27	G	157 46 30.47	Oct. 28	C	159 44 27.71	7	F	39.75
28	C	31.64	Nov. 16	I	26.00	Lacaille 497.		
30	G	30.24	18	G	26.94	Oct. 22	F	157 11 50.79
Lacaille 380.			Lacaille 417.			23	I	51.09
Nov. 21	B	161 46 50.21	Oct. 31	C	161 19 56.67	27	G	49.15
23	I	52.48	Nov. 4	C	57.70	Lacaille 499.		
28	F	50.61	13	G	57.03	Oct. 28	C	156 14 45.43
Dec. 3	I	50.70	Lacaille 421.			30	G	45.84
Lacaille 383.			Nov. 17	F	162 58 53.79	31	C	45.10
Oct. 16	F	159 33 51.11	19	C	52.75	γ Piscium.		
22	F	49.68	20	G	52.80	Oct. 13	G	85 9 3.03
23	I	51.03	Lacaille 409.			δ Piscium.		
Lacaille 393.			Oct. 15	G	155 1 30.31	Nov. 20	G	81 28 37.83
Oct. 29	I	163 24 39.07	22	F	31.74	Lacaille 546.		
Nov. 3	G	36.88	Nov. 3	G	30.83	Oct. 23	I	164 10 60.74
4	C	38.20	Lacaille 443.			26	B	61.93
13	G	36.99	Oct. 22	F	162 21 32.15	27	G	60.43
Lacaille 391.			23	I	32.38	28	C	59.60
Nov. 12	F	157 2 36.40	26	B	32.99	Lacaille 567.		
17	F	37.46	27	G	31.90	Oct. 28	C	163 2 12.98
19	C	36.88	28	C	35.38	29	I	12.63
θ Ceti.			η Piscium.			30	G	13.27
Nov. 30	C	98 50 2.66	Dec. 11	I	75 18 15.74	31	C	12.85
Dec. 4	C	4.09						

108 *Separate Results for Mean N.P.D. of Stars observed*

R.A. 6^h. 3^m. to 6^h. 26^m.

Day.	Observer.	° ' "	Day.	Observer.	° ' "	Day.	Observer.	° ' "
Lacaille 2193.			Lacaille 2249.			* 7 mag. R.A. 6 ^h . 20 ^m . 9 ^s .		
Feb. 12	I	157 18 0 ^s 81	Feb. 12	I	156 38 25 ^s 58	Mar. 2	C	156 29 31 ^s 32
13	C	1 ^s 66	13	C	25 ^s 57	Lacaille 2314.		
14	F	1 ^s 15	19	F	26 ^s 26	Feb. 12	I	159 43 35 ^s 78
Lacaille 2203.			Lacaille 2283.			13	C	35 ^s 89
Feb. 9	F	156 1 20 ^s 14	Feb. 25	I	164 42 31 ^s 07	17	C	35 ^s 65
11	G	20 ^s 08	28	G	31 ^s 79	Lacaille 2322.		
12	I	19 ^s 71	Mar. 2	C	32 ^s 13	Feb. 19	F	162 4 26 ^s 09
Lacaille 2212.			Lacaille 2266.			20	I	27 ^s 19
Feb. 6	C	157 15 44 ^s 11	Feb. 14	F	156 14 42 ^s 45	23	F	26 ^s 32
13	C	45 ^s 56	17	C	41 ^s 92	B.A.C. 2097.		
14	F	45 ^s 22	19	F	43 ^s 53	Dec. 22	F	61 42 22 ^s 42
Lacaille 2227.			Lacaille 2294.			Lacaille 2340.		
Feb. 12	I	158 48 57 ^s 76	Feb. 12	I	161 36 28 ^s 16	Feb. 9	F	159 54 51 ^s 97
13	C	59 ^s 41	20	I	27 ^s 97	11	G	51 ^s 82
14	F	59 ^s 57	23	F	29 ^s 54	12	I	53 ^s 22
Lacaille 2230.			Lacaille 2298.			Lacaille 2358.		
Feb. 9	F	155 33 35 ^s 68	Feb. 9	F	161 39 20 ^s 80	Feb. 13	C	160 52 20 ^s 08
11	G	34 ^s 90	11	G	21 ^s 22	14	F	20 ^s 79
13	C	36 ^s 08	13	C	21 ^s 02	17	C	22 ^s 14
Lacaille 2248.			Lacaille 2308.			Lacaille 2357.		
Feb. 14	F	159 43 35 ^s 47	Feb. 17	C	163 34 39 ^s 38	Feb. 18	G	160 6 43 ^s 36
17	C	33 ^s 28	18	G	40 ^s 74	19	F	43 ^s 90
18	G	34 ^s 16	19	F	39 ^s 37	20	I	43 ^s 86
Lacaille 2272.			Lacaille 2305.			Lacaille 2368.		
Feb. 20	I	162 58 38 ^s 65	Feb. 14	F	159 6 12 ^s 42	Feb. 2	F	159 37 4 ^s 13
23	F	39 ^s 64	24	G	11 ^s 01	6	C	3 ^s 89
24	G	38 ^s 39	27	F	11 ^s 63	12	I	4 ^s 26

R.A. 6^h. 26^m. to 6^h. 54^m.

Day.	Observer.	o' ' "	Day.	Observer.	o' ' "	Day.	Observer.	o' ' "
* 7.8 mag. R.A. 6 ^h . 26 ^m . 41 ^s .			* 7 mag. R.A. 6 ^h . 39 ^m . 48 ^s .			Lacaille 2525.		
Feb. 17	C	160 55 13.31	Sept. 7	I	170 29 16.49	Jan. 5	I	151 48 21.41
49 Aurigæ.			12	C	18.35	12	F	22.74
Dec. 22	F	61 52 53.11	18	C	15.88	14	C	23.40
Lacaille 2381.			Lacaille 2504.			Lacaille 2556.		
Feb. 9	F	155 28 46.75	Feb. 3	C	160 31 36.72	Jan. 15	F	156 8 34.25
11	G	45.83	7	G	35.96	23	F	35.17
12	I	45.51	9	F	38.52	26	F	35.11
Lacaille 2419.			Lacaille 2495.			Lacaille 2586.		
Jan. 21	C	160 25 10.64	Jan. 26	F	157 42 53.01	Jan. 29	F	159 49 54.51
22	G	10.27	Feb. 11	G	53.29	Feb. 4	G	52.67
23	F	12.27	12	I	53.74	6	C	52.74
Lacaille 2457.			Lacaille 2515.			Lacaille 2596.		
Jan. 17	C	163 38 46.68	Jan. 15	F	161 38 46.04	Feb. 2	F	163 9 6.98
26	F	47.28	22	G	44.82	7	G	6.48
27	G	45.60	23	F	46.15	9	F	6.77
Lacaille 2451.			Lacaille 2508.			Lacaille 2597.		
Jan. 28	C	155 58 13.16	Jan. 27	G	159 34 39.71	Jan. 31	C	160 48 22.32
30	G	13.58	Feb. 4	G	38.37	Feb. 11	G	22.31
31	C	13.45	6	C	39.10	12	I	21.97
Lacaille 2472.			Lacaille 2547.			Lacaille 2604.		
Jan. 29	F	160 29 8.89	Jan. 17	C	162 58 43.27	Jan. 12	F	160 21 0.48
Feb. 3	C	8.32	28	C	41.50	28	C	0.85
4	G	7.35	29	F	42.13	Feb. 13	C	1.44
Lacaille 2551 S.P.			Lacaille 2536.			Lacaille 2587.		
Sept. 12	C	170 26 12.38	Jan. 31	C	160 17 43.90	Jan. 5	I	145 29 51.42
18	C	11.53	Feb. 2	F	43.95	17	C	51.78
			3	C	44.17	Feb. 12	I	51.51

110 *Separate Results for Mean N.P.D. of Stars observed*

R.A. 6^h. 56^m. to 7^h. 18^m.

Day.	Observer.	• • •	Day.	Observer.	• • •	Day.	Observer.	• • •
Lacaille 2614.			Lacaille 2653.			Lacaille 2765.		
Jan. 15	F	158 20 16'12	Dec. 22	F	135 7 44'17	Feb. 2	F	159 54 24'34
Feb. 2	F	16'94	Lacaille 2694.			18	G	23'18
6	C	16'57	Jan. 26	F	156 48 52'14	19	F	23'22
Lacaille 2627.			29	F	51'27	Lacaille 2760.		
Feb. 9	F	160 19 14'58	Feb. 3	C	50'87	Feb. 6	C	157 33 27'94
14	F	14'56	Lacaille 2704.			11	G	29'01
17	C	13'63	Feb. 11	G	158 38 13'70	12	I	29'18
Lacaille 2644.			12	I	13'72	Lacaille 2775.		
Feb. 11	G	164 33 53'27	13	C	14'12	Feb. 14	F	162 7 41'62
18	G	53'00	Lacaille 2723.			23	F	40'17
19	F	52'97	Feb. 2	F	161 4 53'41	24	G	39'02
Lacaille 2646.			14	F	54'29	Lacaille 2795.		
Jan. 12	F	157 44 36'02	18	G	52'66	Jan. 24	G	162 32 15'69
22	G	34'39	Lacaille 2716.			Feb. 9	F	17'40
26	F	36'85	Feb. 9	F	157 43 56'14	13	C	16'82
Lacaille 2645.			19	F	56'37	Lacaille 2809.		
Jan. 29	F	155 31 29'70	23	F	58'11	Jan. 15	F	157 43 35'75
31	C	28'77	Lacaille 2746.			21	C	36'55
Feb. 3	C	28'38	Jan. 15	F	160 17 37'33	23	F	36'90
Lacaille 2664.			23	F	38'50	Lacaille 2825.		
Jan. 15	F	156 42 3'60	31	C	37'78	Jan. 26	F	162 30 42'83
21	C	4'54	Lacaille 2743.			28	C	42'09
23	F	4'83	Feb. 17	C	156 51 16'78	29	F	43'50
δ Canis Majoris.			19	F	15'97	Lacaille 2828.		
Dec. 23	G	116 11 40'35	20	I	16'61	Jan. 24	G	161 31 8'90
Lacaille 2686.			Lacaille 2751.			31	C	9'55
Jan. 28	C	160 20 54'61	Jan. 26	F	157 44 51'28	Feb. 2	F	9'65
Feb. 7	G	56'01	29	F	51'93			
9	F	55'75	Feb. 4	G	51'10			

at the Royal Observatory, Cape of Good Hope, in 1874.

III

R.A. 7^h. 20^m. to 7^h. 43^m.

Day.	Observer.	° ' "	Day.	Observer.	° ' "	Day.	Observer.	° ' "
Lacaille 2838.			Lacaille 2927.			Lacaille 2955.		
Feb. 4	G	159 58 2'97	Jan. 24	G	165 19 39'70	Feb. 28	G	155 37 45'17
6	C	3'46	α Canis Minoris.			Mar. 3	G	44'21
9	F	3'02	Dec. 22	F	84 27 12'89	9	I	44'00
Lacaille 2853.			Lacaille 2935.			Lacaille 2977.		
Feb. 11	G	161 17 15'93	Jan. 28	C	158 29 24'20	Feb. 25	I	157 9 19'88
12	I	15'75	30	G	24'72	27	F	19'59
13	C	16'26	31	C	24'46	Mar. 10	C	19'38
Lacaille 2862.			Lacaille 2961.			Lacaille 3010.		
Jan. 24	G	160 23 13'29	Jan. 29	F	164 0 55'23	Jan. 30	G	163 59 19'37
Feb. 2	F	13'74	Feb. 4	G	54'99	Feb. 2	F	18'47
4	G	13'71	7	G	54'47	4	G	19'47
Lacaille 2885.			9	F	55'61	Lacaille 3018.		
Feb. 14	F	161 13 2'21	Lacaille 2967.			Jan. 26	F	159 32 58'02
18	G	1'48	Feb. 11	G	164 24 55'87	28	C	59'14
19	F	1'28	12	I	56'81	29	F	59'06
Lacaille 2875.			Lacaille 2953.			Lacaille 3038.		
Feb. 9	F	160 8 55'36	Jan. 24	G	157 5 34'82	Jan. 24	G	161 32 45'90
17	C	56'30	Feb. 13	C	35'55	31	C	46'48
20	I	55'29	14	F	35'12	Feb. 6	C	45'94
Lacaille 2887.			Lacaille 2968.			Lacaille 3056.		
Jan. 29	F	159 19 3'22	Feb. 17	C	160 14 17'24	Feb. 19	F	162 18 12'01
Feb. 11	G	4'04	18	G	16'63	23	F	10'50
12	I	4'48	19	F	15'82	24	G	10'57
Lacaille 2886.			Lacaille 2966.			* 8 mag. R.A. 7 ^h . 43 ^m . 25 ^s .		
Jan. 15	F	158 21 30'51	Feb. 20	I	158 46 14'02	Feb. 19	F	162 18 21'62
26	F	30'41	23	F	14'57	24	G	21'89
Feb. 6	C	28'78	24	G	14'60			

R.A. 7^h. 43^m. to 8^h. 3^m.

Day.	Observer.	• • •	Day.	Observer.	• • •	Day.	Observer.	• • •
Lacaille 3037.			Lacaille 3085 S.P.			Lacaille 3182.		
Feb. 17	C	156 53 47'45	Sept. 28	I	161 24 24'58	Feb. 20	I	159 40 22'15
18	G	46'58				25	I	21'43
20	I	46'61	Lacaille 3083.			27	F	21'40
Lacaille 3055.			Jan. 31	C	155 52 26'20	Lacaille 3182 S.P.		
Feb. 28	G	159 45 14'95	Feb. 12	I	26'89	Sept. 19	G	159 40 19'44
Mar. 3	G	15'95	14	F	26'30	* 7 ⁸ mag. R.A. 8 ^h . 2 ^m . 0.		
9	I	14'83	Lacaille 3111.			Feb. 27	F	159 40 19'51
Lacaille 3058.			Jan. 28	C	160 27 10'17	Apr. 10	F	20'26
Feb. 7	G	161 14 13'58	29	F	11'50	11	C	21'15
12	I	13'37	30	G	10'00	15	C	19'11
13	C	12'65	6 Cancri			15 Argus.		
Lacaille 3054.			Dec. 22	F	61 51 14'88	Dec. 17	G	113 56 30'59
Mar. 12	I	155 45 55'77	Lacaille 3142.			Lacaille 3203.		
13	G	54'45	Jan. 30	G	155 33 57'91	Jan. 30	G	159 36 44'34
14	F	55'84	31	C	56'86	Feb. 25	I	44'32
Lacaille 3057.			Lacaille 3188.			Mar. 3	G	44'57
Feb. 14	F	159 30 48'35	Feb. 3	C	162 53 33'69	Lacaille 3203 S.P.		
25	I	48'61	4	G	33'28	Sept. 17	F	159 36 41'61
27	F	49'61	6	C	33'12	Lacaille 3202.		
Lacaille 3062.			Lacaille 3188 S.P.			Mar. 10	C	158 34 35'22
Jan. 29	F	157 7 12'78	Sept. 29	C	162 53 33'12	13	G	36'17
30	G	11'54	Lacaille 3174.			14	F	36'12
Feb. 2	F	11'91	Feb. 7	G	155 39 36'96	Lacaille 3202 S.P.		
Lacaille 3085.			9	F	36'85	Sept. 14	F	158 34 34'47
Feb. 4	G	161 24 25'43	11	G	37'81			
17	C	25'59						
18	G	24'95						

R.A. 8^h. 3^m. to 8^h. 20^m.

Day.	Observer.	° ' "	Day.	Observer.	° ' "	Day.	Observer.	° ' "
Lacaille 3194.			Lacaille 3254.			A Octantis S.P. (Continued.)		
Mar. 16	C	156 50 51.50	Mar. 10	C	158 37 6.59	Oct. 1	F	178 29 60.89
25	G	52.54	13	G	6.28	2	I	59.63
28	G	50.88	14	F	6.83	9	C	60.15
Lacaille 3215.			Lacaille 3268.			10	G	59.94
Mar. 31	C	159 58 36.76	Jan. 27	G	161 20 49.53	12	I	62.91
Apr. 1	G	37.06	Feb. 2	F	50.09	13	G	59.45
2	I	37.27	3	C	49.28	14	C	60.81
Lacaille 3225.			A Octantis.			15	G	60.07
Feb. 4	G	155 36 27.13	Feb. 9	F	178 29 60.27	Lacaille 3329.		
Mar. 27	F	28.15	11	G	58.44	Jan. 27	G	163 25 5.26
31	C	27.84	12	I	59.97	Feb. 3	C	4.45
Lacaille 3225 S.P.			13	C	61.60	4	G	3.89
Sept. 5	G	155 36 28.72	14	F	61.87	Lacaille 3313.		
9	G	26.91	17	C	60.43	Dec. 12	G	155 13 2.65
* 7 mag. R.A. 8 ^h . 7 ^m . 26 ^s .			18	G	59.07	17	G	3.83
Apr. 9	I	158 31 44.53	19	F	59.78	19	G	4.12
11	C	46.40	23	F	61.27	* 7.8 mag. R.A. 8 ^h . 19 ^m . 0 ^s .		
15	C	45.51	24	G	59.49	Apr. 9	I	158 35 59.43
Lacaille 3242.			28	G	60.75	10	F	60.26
Feb. 6	C	158 14 49.38	Mar. 21	C	60.63	15	C	59.74
27	F	50.97	23	I	60.51	Lacaille 3346.		
Mar. 3	G	50.05	25	G	61.68	Feb. 25	I	158 39 30.12
Lacaille 3242 S.P.			26	C	62.02	27	F	29.73
Sept. 10	F	158 14 48.03	28	G	60.14	Mar. 3	G	30.13
			Apr. 8	G	60.29	Lacaille 3355.		
			21	C	62.47	Mar. 10	C	161 6 48.98
			22	G	60.93	13	G	48.25
			24	C	62.85	14	F	48.62
			30	C	62.31			
			Dec. 22	F	57.47			
			A Octantis S.P.					
			Sept. 28	I	178 29 60.00			
			29	C	60.88			

114 *Separate Results for Mean N.P.D. of Stars observed*

R.A. 8^h. 20^m. to 8^h. 38^m.

Day.	Observer.	o' ' "	Day.	Observer.	o' ' "	Day.	Observer.	o' ' "
Lacaille 3355 S.P.			Lacaille 3384 S.P.			Lacaille 3464.		
Sept. 21	F	161 6 49.45	Sept. 6	F	155 42 61.98	Feb. 20	I	164 56 12.76
			7	I	59.29	28	G	14.48
Lacaille 3357.			Lacaille 3420.			Mar. 3	G	13.95
Mar. 10	C	161 6 13.44	Feb. 9	F	163 45 13.76	Lacaille 3436.		
13	G	14.22	25	I	14.91	Dec. 12	G	155 5 41.46
14	F	13.91	Mar. 12	I	13.72	17	G	38.20
Lacaille 3379.			Lacaille 3442.			22	F	39.03
Mar. 16	C	164 36 47.88	Mar. 26	C	164 29 49.06	Lacaille 3444.		
28	G	44.78	27	F	48.72	Feb. 11	G	156 26 18.31
30	I	46.27	28	G	47.66	18	G	19.19
Lacaille 3351.			Lacaille 3424.			19	F	18.63
Mar. 23	I	156 55 49.13	Mar. 14	F	159 40 30.89	Lacaille 3499.		
31	C	49.73	16	C	30.43	Feb. 13	C	164 25 19.50
Apr. 1	G	50.50	19	I	30.01	25	I	19.38
Lacaille 3396.			* 7.8 mag. R.A. 8 ^h . 27 ^m . 0 ^s .			Mar. 12	I	18.94
Feb. 24	G	162 59 31.08	Apr. 9	I	164 24 53.40	Lacaille 3489.		
Mar. 3	G	31.58	10	F	52.54	Mar. 9	I	162 55 27.06
9	I	29.02	11	C	53.35	14	F	29.58
Lacaille 3383.			Lacaille 3432.			16	C	30.16
Feb. 4	G	159 50 17.97	Feb. 17	C	156 42 56.37	Lacaille 3510.		
6	C	17.57	Mar. 10	C	55.83	Feb. 11	G	160 14 6.01
11	G	18.10	25	G	56.85	18	G	4.86
Lacaille 3384.			Lacaille 3453.			20	I	6.48
Feb. 14	F	155 42 60.21	Mar. 23	I	161 39 31.38	Lacaille 3527.		
18	G	58.51	31	C	31.43	Feb. 17	C	158 49 34.32
19	F	60.56	Apr. 1	G	31.22	24	G	34.12
						25	I	34.19

R.A. 8^h. 38^m. to 8^h. 56^m.

Day.	Observer.	• • •	Day.	Observer.	• • •	Day.	Observer.	• • •
Lacaille 3536.			Lacaille 3568.			Lacaille 3609.		
Feb. 28	G	159 56 14 ^h 66	Feb. 9	F	157 45 13 ^h 55	Feb. 23	F	156 19 24 ^h 26
Mar. 3	G	14 ^h 11	11	G	14 ^h 15	Mar. 12	I	22 ^h 62
9	I	13 ^h 13	17	C	14 ^h 08	13	G	22 ^h 97
Lacaille 3550.			Lacaille 3562.			Lacaille 3629.		
Mar. 13	G	164 7 32 ^h 39	Feb. 24	G	155 22 10 ^h 31	Mar. 14	F	162 4 41 ^h 05
16	C	31 ^h 89	27	F	10 ^h 15		C	40 ^h 88
19	I	31 ^h 49	28	G	10 ^h 76		C	41 ^h 42
Lacaille 3559.			Lacaille 3583.			Lacaille 3640.		
Apr. 2	I	164 37 12 ^h 30	Feb. 23	F	164 9 7 ^h 26	Feb. 18	G	159 21 5 ^h 77
8	G	10 ^h 91	Mar. 31	C	9 ^h 50		I	6 ^h 97
9	I	10 ^h 50	Apr. 1	G	10 ^h 57		G	6 ^h 56
Lacaille 3535.			Lacaille 3599.			Lacaille 3680.		
Mar. 21	C	156 21 53 ^h 09	Mar. 14	F	163 50 29 ^h 76	Feb. 23	F	164 24 7 ^h 62
27	F	52 ^h 51	16	C	29 ^h 61		F	8 ^h 12
30	I	53 ^h 11	19	I	30 ^h 07		G	6 ^h 53
Lacaille 3555.			Lacaille 3608.			Lacaille 3666.		
Mar. 10	C	163 37 52 ^h 01	Mar. 27	F	164 19 29 ^h 14	Feb. 11	G	155 43 1 ^h 54
31	C	51 ^h 90	Apr. 2	I	31 ^h 73		C	2 ^h 54
Apr. 1	G	51 ^h 55	7	C	31 ^h 28		C	1 ^h 87
Lacaille 3571.			Lacaille 3588.			* 8 mag. R.A. 8 ^h . 55 ^m . 27 ^s .		
Feb. 18	G	162 8 12 ^h 16	Feb. 18	G	154 57 45 ^h 43	Feb. 11	G	155 43 13 ^h 13
20	I	12 ^h 16	24	G	45 ^h 40			
Mar. 12	I	12 ^h 22	25	I	45 ^h 13			
Lacaille 3578.			Lacaille 3610.			Lacaille 3674.		
Mar. 3	G	163 9 34 ^h 17	Feb. 27	F	160 50 52 ^h 98	Mar. 9	I	159 9 10 ^h 89
Apr. 4	F	34 ^h 89	28	G	53 ^h 14	12	I	12 ^h 18
7	C	34 ^h 68	Mar. 9	I	50 ^h 56	13	G	11 ^h 78

116 *Separate Results for Mean N.P.D. of Stars observed*

R.A. 8^h. 56^m. to 9^h. 15^m.

Day.	Observer.	° ' "	Day.	Observer.	° ' "	Day.	Observer.	° ' "
Lacaille 3679.			Lacaille 3709.			Lacaille 3767.		
Mar. 14	F	160 31 41'92	Apr. 7	C	163 54 13'05	Mar. 16	C	164 14 39'12
19	I	40'27	8	G	12'96	23	I	38'22
23	I	41'13	9	I	13'58	31	C	39'66
Lacaille 3688.			Lacaille 3714.			Lacaille 3752.		
Feb. 18	G	163 25 58'89	Feb. 18	G	160 6 14'45	Feb. 18	G	154 58 36'14
24	G	58'25	24	G	14'31	24	G	35'93
25	I	59'93	25	I	16'28	25	I	35'94
Lacaille 3682.			Lacaille 3730.			Lacaille 3775.		
Mar. 16	C	157 38 51'00	Mar. 9	I	160 1 52'26	Feb. 23	F	158 44 14'75
21	C	50'84	14	F	53'13	Mar. 9	I	13'55
24	F	49'03	19	I	55'24	14	F	14'58
25	G	51'43	Lacaille 3736.			Lacaille 3774.		
27	F	52'46	Mar. 13	G	162 5 45'20	Apr. 2	I	157 12 10'48
Lacaille 3683.			27	F	46'37	8	G	10'25
Mar. 16	C	157 35 60'13	30	I	44'50	9	I	9'36
21	C	57'31	* 7 ⁸ mag. R.A. 9 ^h . 5 ^m . 17 ^s .			Lacaille 3779.		
30	I	57'79	Feb. 27	F	157 58 52'00	Mar. 13	G	158 41 3'02
31	C	58'62	Apr. 10	F	52'71	Apr. 1	G	2'74
Lacaille 3694.			11	C	52'57	7	C	2'47
Apr. 1	G	158 11 11'62	22	G	50'83	Lacaille 3791.		
2	I	12'69	Lacaille 3745.			Feb. 28	G	159 11 55'15
4	F	13'24	Feb. 17	C	158 14 39'80	Apr. 4	F	53'65
Lacaille 3696.			28	G	40'18	10	F	54'60
Feb. 23	F	155 53 37'55	Mar. 12	I	39'82	Lacaille 3806.		
27	F	37'04	* 7 mag. R.A. 9 ^h . 6 ^m . 24 ^s .			Feb. 27	F	157 8 47'37
28	G	36'82	Feb. 27	F	158 1 0'82	Mar. 23	I	47'90
			Apr. 15	C	0'55	26	C	47'84
			20	F	1'07			
			22	G	0'60			

R.A. 9^h. 15^m. to 9^h. 33^m.

Day.	Observer.	° ' "	Day.	Observer.	° ' "	Day.	Observer.	° ' "
Lacaille 3811.			Lacaille 3891.			Lacaille 3940.		
Feb. 18	G	158 9 30 ¹¹	Apr. 8	G	159 31 51 ⁰⁹	Feb. 27	F	156 9 43 ⁵⁴
23	F	30 ⁴⁷	9	I	50 ⁵³	28	G	43 ⁷⁶
24	G	30 ⁵⁴	10	F	50 ⁵⁹	Mar. 12	I	43 ⁶⁸
Lacaille 3809.			Lacaille 3893.			Lacaille 3957.		
Mar. 13	G	156 31 12 ⁵⁸	Mar. 12	I	159 51 54 ⁰⁸	Apr. 9	I	163 5 38 ⁹⁴
14	F	14 ⁴⁷	30	I	55 ¹⁹	10	F	37 ⁸²
16	C	13 ⁵⁶	31	C	55 ⁷⁹	11	C	38 ²⁰
Lacaille 3826.			* 8 mag. R.A. 9 ^h . 23 ^m . 45 ^s .			Lacaille 3954.		
Mar. 9	I	156 53 47 ⁹⁷	Mar. 31	C	159 51 56 ⁹⁵	Mar. 14	F	159 54 40 ⁹¹
12	I	46 ⁸³	Lacaille 3914.			23	I	41 ⁵⁶
Apr. 1	G	48 ⁴¹	Feb. 19	F	161 3 16 ⁵⁷	26	C	41 ⁶³
Lacaille 3845.			25	I	16 ⁷⁰	Lacaille 3968.		
Mar. 27	F	164 12 10 ¹⁴	Mar. 9	I	16 ⁴¹	Feb. 19	F	162 31 20 ⁵⁹
30	I	11 ⁹¹	Lacaille 3909.			Mar. 30	I	19 ⁶¹
31	C	11 ⁷⁴	Mar. 13	G	156 9 7 ⁴⁰	31	C	20 ⁰⁵
Lacaille 3846.			14	F	8 ²³	Lacaille 3970.		
Apr. 2	I	164 21 45 ⁷⁷	16	C	8 ²⁷	Mar. 25	G	163 11 22 ⁹²
7	C	46 ⁷⁴	Lacaille 3922.			Apr. 7	C	23 ¹²
8	G	46 ⁰⁴	Apr. 1	G	161 13 54 ⁵⁸	8	G	22 ²³
Lacaille 3850.			2	I	52 ³⁰	Lacaille 3963.		
Apr. 9	I	162 47 10 ⁰⁶	7	C	51 ⁵²	Mar. 13	G	155 33 38 ⁸³
10	F	10 ⁹⁵	Lacaille 3934.			16	C	36 ¹⁷
11	C	11 ⁶⁶	Apr. 11	C	162 56 41 ⁸⁴	21	C	36 ²⁹
Lacaille 3868.			13	I	41 ¹⁰	Lacaille 3977.		
Mar. 16	C	163 4 3 ¹⁵	15	C	41 ³⁵	Feb. 27	F	157 38 46 ⁰⁵
Apr. 13	I	3 ⁰⁰	Lacaille 4027 S.P.			Mar. 9	I	46 ²⁵
15	C	3 ⁰¹	Sept. 9	G	174 7 5 ²⁷	May 24	F	46 ⁹⁷
			14	F	4 ¹⁴			

R.A. 9^h. 38^m. to 10^h. 4^m.

Day.	Observer.	o' "	Day.	Observer.	o' "	Day.	Observer.	o' "
Lacaille 4005.			Lacaille 4054.			Lacaille 4113.		
Mar. 12	I	155 30 28.15	Feb. 19	F	159 32 10.03	Apr. 13	I	158 30 5.27
14	F	28.80	Mar. 14	F	10.16	Dec. 12	G	4.80
16	C	28.09	19	I	8.13	17	G	3.36
Lacaille 4020.			Lacaille 4071.			Lacaille 4121.		
Feb. 27	F	157 55 47.35	Mar. 9	I	157 49 51.73	Mar. 13	G	155 22 47.22
Mar. 9	I	46.96	12	I	52.11	14	F	47.89
May 27	G	47.27	14	F	52.98	23	I	46.81
Lacaille 4018.			Lacaille 4097.			Lacaille 4154.		
Feb. 19	F	156 20 19.45	Mar. 13	G	161 20 59.73	Mar. 24	F	160 7 16.08
Mar. 13	G	20.20	16	C	59.36	25	G	15.41
24	F	20.68	19	I	58.12	26	C	16.30
25	G	20.28	Lacaille 4096.			Lacaille 4149.		
Lacaille 4040.			Mar. 23	I	160 51 31.61	Mar. 12	I	155 18 34.98
Mar. 30	I	161 36 47.51	25	G	33.02	Apr. 2	I	33.64
31	C	47.21	26	C	32.50	7	C	35.69
Apr. 1	G	47.88	Lacaille 4099.			α Leonis.		
Lacaille 4044.			Mar. 30	I	159 17 58.52	Nov. 10	G	77 25 3.07
Apr. 11	C	159 12 53.51	31	C	58.20	Lacaille 4175.		
15	C	52.95	Apr. 2	I	59.18	Mar. 13	G	157 41 4.03
Dec. 23	G	52.64	Lacaille 4102.			14	F	6.71
Lacaille 4043.			Apr. 4	F	158 35 31.27	16	C	5.55
Apr. 8	G	156 13 39.72	7	C	31.79	Lacaille 4194.		
9	I	39.69	8	G	31.76	Apr. 8	G	160 51 39.69
10	F	41.22	10	F	31.96	9	I	39.93
Lacaille 4050.			11	C	31.80	10	F	40.17
Apr. 2	I	159 10 52.60	Lacaille 4116.					
4	F	52.81	Mar. 12	I	160 47 21.93			
7	C	52.91	16	C	22.85			
13	I	51.59	26	C	22.81			
			Apr. 9	I	21.42			

R.A. 10^h. 5^m. to 10^h. 26^m.

Day.	Observer.	° ' "	Day.	Observer.	° ' "	Day.	Observer.	° ' "
Lacaille 4184.			Lacaille 4238.			Lacaille 4296.		
Apr. 15	C	154 53 36.57	Apr. 22	G	157 26 4.35	Apr. 8	G	156 15 52.32
20	F	37.15	28	F	4.56	9	I	52.62
21	C	35.86	29	F	4.17	10	F	53.54
Lacaille 4203.			Lacaille 4243.			Lacaille 4319.		
Apr. 13	I	158 3 50.94	Apr. 10	F	159 24 44.67	Mar. 25	G	163 23 27.27
22	G	51.73	13	I	44.53	26	C	26.87
28	F	51.86	20	F	45.82	31	C	25.88
Lacaille 4205.			Lacaille 4248.			Lacaille 4322.		
Mar. 14	F	156 38 34.97	Apr. 7	C	156 39 34.50	Apr. 13	I	163 19 55.03
19	I	34.43	8	G	34.23	15	C	53.88
Apr. 7	C	35.55	9	I	34.68	21	C	54.51
Lacaille 4209.			γ ¹ Leonis.			Lacaille 4321.		
Apr. 11	C	157 13 14.98	Dec. 23	G	69 31 17.95	Apr. 2	I	155 5 45.11
21	C	14.50				7	C	45.45
29	F	15.94				8	G	44.97
Lacaille 4219.			Lacaille 4280.			Lacaille 4335.		
Apr. 11	C	157 16 14.27	Mar. 24	F	156 32 3.30	Mar. 19	I	162 31 32.28
15	C	14.24	31	C	4.21	23	I	32.59
			Apr. 4	F	4.05	30	I	33.56
Brisbane 2905.			Lacaille 4279.			ρ Leonis.		
Apr. 30	C	155 39 50.69	Mar. 16	C	155 25 49.83	Dec. 23	G	80 2 44.49
May 1	I	50.39	19	I	48.77			
Lacaille 4233.			26	C	50.11			
May 4	I	155 44 52.52	Lacaille 4290.			Lacaille 4343.		
Lacaille 4233 S.P.			Mar. 30	I	160 30 50.59	Apr. 10	F	156 20 20.46
Sept. 17	B	155 44 52.88	Apr. 2	I	49.80	24	C	19.78
			7	C	51.29	29	F	18.61

120 *Separate Results for Mean N.P.D. of Stars observed*R.A. 10^h. 27^m. to 11^h. 0^m.

Day.	Observer.	° ' "	Day.	Observer.	° ' "	Day.	Observer.	° ' "
Lacaille 4357.			* 6 mag. R.A. 10 ^h . 40 ^m . 44 ^s .			Lacaille 4531.		
Apr. 15	C	161 20 41.96	Mar. 16	C	160 11 35.59	Mar. 19	I	160 2 57.88
20	F	40.37	May 6	F	35.72	26	C	59.38
21	C	41.95	7	G	35.92	30	I	58.78
Lacaille 4351.			Lacaille 4474.			Lacaille 4545.		
Apr. 9	I	157 3 19.33	Mar. 26	C	161 46 59.86	Apr. 10	F	157 59 40.57
11	C	18.94	30	I	57.46	11	C	40.43
13	I	18.79	Apr. 2	I	59 69	13	I	39.99
Lacaille 4367.			Lacaille 4490.			Lacaille 4548.		
Apr. 2	I	162 34 27.08	Apr. 13	I	164 20 38.93	Apr. 15	C	158 21 51.59
4	F	26.49	15	C	39.47	20	F	51.35
7	C	26.10	20	F	39.26	21	C	52.10
8	G	26.44	/ Leonis.			Lacaille 4564.		
Lacaille 4416.			Dec. 23	G	78 47 18.87	Apr. 28	F	164 25 33.14
Mar. 16	C	159 39 16.19	Lacaille 4486.			29	F	34.34
19	I	16.04	Apr. 9	I	158 32 44.16	30	C	33.03
23	I	15.47	10	F	45.71	Lacaille 4618.		
Lacaille 4439.			11	C	45.41	Apr. 21	C	157 13 53.86
Mar. 26	C	163 50 12.45	Lacaille 4491.			30	C	54.75
30	I	10.46	Apr. 22	G	158 46 21.27	May 1	I	52.67
31	C	11.55	24	C	21.70	χ Leonis.		
Lacaille 4466.			29	F	21.85	Dec. 23	G	81 58 59.56
Apr. 4	F	160 48 12.52	ω Ursæ Majoris.			Lacaille 4594.		
7	C	12.61	Dec. 23	G	46 8 22.60	Mar. 30	I	161 24 39.36
8	C	10.60	Lacaille 4521.			Apr. 8	G	38.22
Lacaille 4467.			Mar. 31	C	157 32 28.80	13	I	37.56
Mar. 16	C	160 11 52.28	Apr. 2	I	28.50	* 7.8 mag. R.A. 11 ^h . 0 ^m . 46 ^s .		
19	I	51.96	7	C	28.01	Apr. 30	C	157 13 23.82
23	I	51.83	9	G	28.40			

at the Royal Observatory, Cape of Good Hope, in 1874. 121

R.A. 11^h. 0^m. to 11^h. 26^m.

Day.	Observer.	o' ' "	Day.	Observer.	o' ' "	Day.	Observer.	o' ' "
Lacaille 4620.			Lacaille 4684.			Lacaille 4722.		
Apr. 28	F	164 28 30.49	May 18	I	159 40 27.69	May 8	I	162 16 6.07
May 4	I	26.26	19	C	25.97	14	I	6.60
6	F	29.64	22	F	27.55	16	F	6.88
Lacaille 4622.			Lacaille 4682.			Lacaille 4724.		
May 7	G	160 8 55.58	May 16	F	155 49 32.26	May 18	I	164 27 11.67
8	I	55.00	27	G	31.33	22	F	11.20
14	I	55.33	28	I	30.75	27	G	10.81
Lacaille 4625.			Lacaille 4692.			Lacaille 4721.		
Apr. 29	F	160 11 47.46	May 29	F	157 30 42.38	May 4	I	161 18 15.38
May 15	G	48.32	June 3	G	41.64	6	F	15.74
16	F	50.61	4	F	40.85	7	G	16.34
Lacaille 4654.			5	I	41.22	Lacaille 4744.		
Apr. 8	G	160 45 6.89	Lacaille 4701.			Mar. 13	G	161 33 52.70
21	C	8.09	Mar. 13	G	157 8 7.52	24	F	52.75
30	C	5.62	Apr. 8	G	6.94	Apr. 7	C	53.34
δ Leonis.			21	C	6.71	Lacaille 4752.		
Dec. 23	G	68 47 11.05	Lacaille 4706.			Apr. 8	G	162 56 29.97
Lacaille 4664.			Apr. 29	F	157 25 48.27	10	F	29.20
Apr. 28	F	160 31 56.84	30	C	48.65	11	C	30.17
29	F	56.87	May 1	I	48.32	Lacaille 4765.		
May 1	I	57.31	δ Crateris.			Apr. 13	I	161 46 47.66
Lacaille 4689.			Dec. 23	G	104 5 48.47	15	C	48.71
May 4	I	165 6 15.73	Lacaille 4716.			20	F	47.98
7	G	16.52	May 15	G	163 30 4.70	Lacaille 4780.		
8	I	15.68	19	C	5.04	Mar. 24	F	157 21 46.52
Lacaille 4681.			28	I	4.94	Apr. 8	G	45.50
May 6	F	157 38 29.87				11	C	45.75
14	I	30.23						
15	G	29.92						

R.A. 11^h. 26^m. to 11^h. 44^m.

Day.	Observer.	• • •	Day.	Observer.	• • •	Day.	Observer.	• • •
Lacaille 4786.			Lacaille 4840.			Lacaille 4891.		
Apr. 21	C	163 12 26.87	May 6	F	161 40 12.65	Mar. 24	F	160 12 15.30
30	C	26.87	7	G	11.42	Apr. 7	C	14.71
May 1	I	26.05	16	F	12.86	11	C	14.93
Lacaille 4782.			Lacaille 4855.			* 7.8 mag. R.A. 11 ^h . 40 ^m . 35 ^s .		
Apr. 10	F	156 15 60.26	Apr. 7	C	158 58 22.91	Mar. 24	F	160 12 36.44
28	F	60.06	8	G	21.89	Apr. 8	G	35.69
29	F	58.86	10	F	21.67			
Lacaille 4791.			Lacaille 4866.			Lacaille 4896.		
May 4	I	159 29 56.61	May 15	G	164 31 41.76	May 15	G	156 59 31.74
6	F	55.58	18	I	42.26	16	F	31.64
7	G	56.05	19	C	43.02	18	I	31.10
Lacaille 4813.			Lacaille 4870.			Lacaille 4899.		
May 8	I	162 8 48.98	Apr. 13	I	161 44 47.53	Apr. 10	F	156 6 50.67
14	I	48.28	21	C	47.33	30	C	50.54
15	G	48.46	22	G	47.70	May 5	C	50.42
Lacaille 4822.			Lacaille 4871.			Lacaille 4907.		
Apr. 10	F	158 58 36.61	Apr. 29	F	157 46 46.10	Apr. 29	F	159 31 31.32
11	C	36.40	May 4	I	46.66	May 7	G	31.68
13	I	36.52	8	I	47.59	8	I	29.63
Lacaille 4826.			Lacaille 4879.			Lacaille 4915.		
Mar. 24	F	156 55 22.20	May 5	C	162 27 5.17	Apr. 21	C	162 50 4.08
Apr. 21	C	21.63	6	F	4.14	May 6	F	3.86
28	F	21.78	14	I	3.49	14	I	3.27
Lacaille 4828.			Lacaille 4883.			Lacaille 4912.		
Apr. 29	F	154 57 29.18	Apr. 28	F	156 1 48.96	Apr. 11	C	157 22 47.65
30	C	28.53	30	C	48.25	28	F	47.84
May 1	I	29.21	May 1	I	47.77	May 1	I	46.24

R.A. 11^h. 48^m. to 12^h. 9^m.

Day.	Observer.	o . .	Day.	Observer.	o . .	Day.	Observer.	o . .
Lacaille 4935.			Lacaille 5000.			Lacaille 5040.		
Apr. 7	C	155 40 22.75	Apr. 8	G	157 37 37.06	May 1	I	156 45 9.40
8	G	22.41	10	F	37.65	14	I	9.15
10	F	20.81	11	C	37.75	15	G	9.35
Lacaille 4962.			Lacaille 5012.			s Corvi.		
Apr. 1	G	160 2 19.60	May 19	C	154 50 43.38	Dec. 23	G	111 55 8.20
11	C	18.14	27	G	43.63	Lacaille 5047.		
21	C	18.67	28	I	41.94	Apr. 10	F	157 33 32.12
* 7.6 mag. R.A. 11 ^h . 55 ^m . 20 ^s .			Lacaille 5018.			15	C	33.28
May 6	F	158 29 45.20	May 22	F	158 25 33.72	21	C	32.83
7	G	45.46	June 3	G	33.54	Lacaille 5060.		
June 12	F	45.32	4	F	31.85	Apr. 1	G	159 27 2.93
Lacaille 4981.			8	C	32.55	29	F	2.49
Apr. 22	G	162 35 47.81	Lacaille 5017.			30	C	1.33
28	F	47.83	June 5	I	162 51 19.57	Lacaille 5072.		
29	F	48.46	9	F	19.48	Apr. 22	G	155 50 51.20
Lacaille 4984.			10	G	18.94	28	F	53.31
Apr. 20	C	160 47 15.83	Lacaille 5019.			May 1	I	51.77
May 1	I	15.09	Apr. 1	G	157 56 59.63	* 7.6 mag. R.A. 12 ^h . 7 ^m . 41 ^s .		
5	C	16.65	15	C	59.32	Apr. 22	G	155 49 26.51
Lacaille 4985.			21	C	58.82	28	F	25.81
May 7	G	158 29 27.78	Lacaille 5020.			May 6	F	26.59
8	I	24.26	Apr. 22	G	155 0 25.93	Lacaille 5079.		
14	I	24.26	28	F	27.65	May 5	C	161 54 48.21
Lacaille 4996.			30	C	27.46	7	G	48.84
May 15	G	163 30 45.10	Lacaille 5028.			8	I	48.10
16	F	44.66	May 5	C	164 39 59.43	Lacaille 5081.		
18	I	44.29	16	F	59.02	May 15	G	163 26 34.81
			18	I	59.13	18	I	36.67
						19	C	34.62

R.A. 12^h. 10^m. to 12^h. 25^m.

Day.	Observer.	o' ' "	Day.	Observer.	o' ' "	Day.	Observer.	o' ' "
Lacaille 5083.			Lacaille 5132.			Lacaille 5170.		
May 16	F	154 59 32 ^s 89	June 8	C	161 54 18 ^s 65	June 3	G	162 23 29 ^s 44
27	G	31 ^s 95	9	F	18 ^s 78	4	F	30 ^s 69
28	I	32 ^s 45	10	G	18 ^s 07	9	F	29 ^s 95
Lacaille 5084.			Lacaille 5133.			Lacaille 5168.		
May 22	F	157 15 36 ^s 15	Apr. 22	G	156 56 2 ^s 76	Apr. 1	G	164 42 13 ^s 00
June 3	G	34 ^s 67	28	F	3 ^s 63	8	G	13 ^s 27
4	F	35 ^s 57	May 5	C	4 ^s 60	10	F	12 ^s 73
Lacaille 5100.			Lacaille 5137.			♂ Corvi.		
Apr. 30	C	155 8 32 ^s 73	May 7	G	155 4 3 ^s 85	Dec. 10	G	105 48 48 ^s 81
May 7	G	33 ^s 67	8	I	3 ^s 54	Lacaille 5181.		
* 7 ^s 8 mag. R.A. 12 ^h . 13 ^m . 36 ^s .			14	I	4 ^s 22	Apr. 21	C	162 18 15 ^s 72
May 14	I	155 6 49 ^s 07	Lacaille 5139.			22	G	15 ^s 03
Lacaille 5111.			June 3	G	158 46 41 ^s 51	30	C	15 ^s 53
June 3	G	162 48 14 ^s 04	12	F	41 ^s 56	Lacaille 5184.		
4	F	15 ^s 20	13	G	41 ^s 40	June 5	I	161 26 12 ^s 72
5	I	14 ^s 56	Lacaille 5149.			8	C	11 ^s 91
Lacaille 5112.			May 15	G	164 46 30 ^s 03	10	G	11 ^s 31
May 15	G	156 49 22 ^s 01	16	F	30 ^s 22	Lacaille 5183.		
19	C	19 ^s 85	18	I	30 ^s 38	June 12	F	162 57 36 ^s 11
22	F	22 ^s 22	Lacaille 5158.			13	G	35 ^s 99
Lacaille 5113.			May 19	C	158 1 45 ^s 93	16	G	35 ^s 32
May 16	F	157 36 22 ^s 98	22	F	45 ^s 85	Lacaille 5182.		
27	G	22 ^s 61	27	G	45 ^s 72	May 15	G	164 44 16 ^s 19
28	I	21 ^s 73	Lacaille 5166.			27	G	16 ^s 17
Lacaille 5123.			Apr. 21	C	162 17 16 ^s 24	28	I	16 ^s 25
Apr. 28	F	156 56 30 ^s 45	30	C	15 ^s 84			
May 5	C	30 ^s 81	May 6	F	16 ^s 60			
6	F	29 ^s 52						

R.A. 12^h. 26^m. to 12^h. 48^m.

Day.	Observer.	o . .	Day.	Observer.	o . .	Day.	Observer.	o . .
Lacaille 5194.			Lacaille 5224.			Lacaille 5255.		
May 16	F	158 2 58.11	Apr. 10	F	156 29 57.34	Apr. 10	F	158 8 24.58
18	I	59.12	11	C	59.27	11	C	25.36
19	C	57.00	21	C	56.81	21	C	24.68
Lacaille 5203.			Lacaille 5227.			Lacaille 5267.		
May 7	G	157 3 42.56	Apr. 30	C	155 49 4.36	May 4	I	157 25 3.66
22	F	43.64	May 14	I	4.52	7	G	5.22
June 3	G	42.73	19	C	4.71	8	I	4.73
β Corvi.			28	I	5.79	Lacaille 5275.		
Dec. 4	G	112 41 58.04	Lacaille 5228.			Apr. 22	G	156 26 31.13
Lacaille 5206.			May 7	G	159 51 15.45	30	C	32.29
Apr. 8	G	157 39 21.84	16	F	15.91	May 1	I	30.69
May 1	I	22.38	18	I	16.78	Lacaille 5279.		
5	G	20.77	Brisbane 4091.			May 6	F	161 17 53.33
Lacaille 5210.			Apr. 28	F	179 6 26.58	14	I	53.13
Apr. 10	F	156 28 35.71	29	F	26.75	15	G	54.69
11	C	35.75	Brisbane 4091 S.P.			Lacaille 5297.		
21	C	34.67	Oct. 6	C	179 6 27.01	Apr. 21	C	160 35 16.38
Lacaille 5213.			Nov. 28	F	26.99	22	G	15.86
Apr. 28	F	158 26 27.11	Lacaille 5236.			May 1	I	15.59
May 4	I	26.35	May 1	I	158 42 55.32	Lacaille 5310.		
8	I	26.93	6	F	56.44	May 4	I	162 20 52.79
Lacaille 5219.			8	I	55.42	7	G	54.83
May 27	G	158 54 31.27	γ ¹ Virginia.			8	I	54.58
June 4	F	33.32	Dec. 4	G	90 45 26.37	Lacaille 5318.		
8	C	33.13	γ ² Virginis.			May 15	G	161 30 4.22
Lacaille 5221.			Dec. 5	G	90 45 30.18	16	F	6.45
May 22	F	164 40 39.22				18	I	4.87
June 3	G	40.22						
5	I	38.15						

R.A. 12^h. 49^m. to 13^h. 13^m.

Day.	Observer.	° ' "	Day.	Observer.	° ' "	Day.	Observer.	° ' "
Lacaille 5323.			Lacaille 5409.			Lacaille 5451.		
May 19	C	157 16 38.86	Apr. 22	G	159 16 14.18	May 15	G	156 6 60.49
22	F	37.31	May 15	G	14.01	16	F	60.52
27	G	38.76	16	F	15.43	18	I	58.83
Lacaille 5327.			Lacaille 5416.			Lacaille 5455.		
June 3	G	154 57 54.44	May 7	G	155 33 23.34	May 22	F	157 22 26.64
4	F	54.85	18	I	24.12	28	I	27.21
5	I	53.72	22	F	24.33	June 8	C	26.74
Lacaille 5335.			Lacaille 5430.			Lacaille 5456.		
May 6	F	160 9 10.85	Apr. 29	F	159 48 33.36	June 12	F	157 49 46.35
7	G	11.34	May 19	C	33.96	13	G	46.47
14	I	10.82	27	G	33.10	16	G	45.81
Lacaille 5349.			* 7.6 mag. R.A. 13 ^h . 6 ^m . 39 ^s .			Lacaille 5459.		
Apr. 22	G	160 52 7.82	June 19	F	157 12 42.69	June 17	I	161 22 7.84
29	F	5.82	25	I	41.21	18	C	5.73
30	C	5.76	26	F	41.14	19	F	9.12
Lacaille 5356.			Lacaille 5433.			Lacaille 5463.		
Apr. 30	C	160 47 48.01	Apr. 21	C	157 13 33.02	May 7	G	160 11 24.06
May 1	I	46.71	30	C	33.36	19	C	24.65
5	C	48.24	May 8	I	33.53	27	G	23.62
Lacaille 5378.			Lacaille 5432.			Lacaille 5470.		
Apr. 22	G	162 54 37.02	June 3	G	159 0 36.59	Apr. 29	F	159 1 0.33
May 8	I	38.45	4	F	36.29	June 3	G	0.72
14	I	36.74	5	I	34.67	4	F	0.69
						5	I	1.28
Lacaille 5393.			Lacaille 5445.			Lacaille 5481.		
Apr. 21	C	157 7 20.07	June 9	F	162 40 37.43	May 15	G	159 53 5.65
30	C	21.20	10	G	36.62	16	F	6.09
May 4	I	18.72	11	I	37.33	22	F	5.22

R.A. 13^h . 13^m . to 13^h . 40^m .

Day.	Observer.	° ' "	Day.	Observer.	° ' "	Day.	Observer.	° ' "
Lacaille 5480.			Lacaille 5529.			Lacaille 5592.		
Apr. 21	C	161 29 5'90	Apr. 21	C	158 58 18'04	June 9	F	164 28 29'64
22	G	4'53	22	G	18'44	10	G	29'88
30	C	6'61	30	C	18'83	11	I	29'53
Lacaille 5486.			Lacaille 5566.			Lacaille 5597.		
June 4	F	164 13 26'87	May 6	F	154 58 58'38	May 22	F	161 13 44'17
8	C	27'97	15	G	58'72	June 12	F	43'18
9	F	27'41	16	F	58'32	13	G	44'12
Lacaille 5497.			Lacaille 5567.			Lacaille 5619.		
May 27	G	159 45 60'38	May 19	C	155 25 45'94	Apr. 30	C	162 59 59'19
28	I	60'32	27	G	47'07	June 8	C	59'74
June 3	G	59'98	June 3	G	46'02	10	G	59'44
Lacaille 5508.			Lacaille 5568.			Lacaille 5630.		
June 12	F	157 52 12'15	Apr. 30	C	162 40 48'22	May 19	C	160 53 47'93
13	G	11'94	May 22	F	49'23	27	G	48'50
16	G	11'96	28	I	48'35	28	I	48'10
Lacaille 5506.			Lacaille 5587.			Lacaille 5642.		
May 15	G	159 58 8'95	June 4	F	159 48 1'33	May 6	F	156 7 10'00
18	I	8'36	5	I	0'53	15	G	10'32
19	C	9'75	8	C	2'17	16	F	9'91
Lacaille 5504.			Lacaille 5594.			Lacaille 5651.		
June 5	I	164 2 3'68	May 6	F	157 1 18'22	May 22	F	160 35 53'56
10	G	3'07	27	G	18'92	June 3	G	51'95
11	I	3'76	June 3	G	17'66	4	F	52'40
Lacaille 5528.			Lacaille 5595.			Lacaille 5666.		
May 16	F	157 12 50'06	May 15	G	160 8 43'82	June 8	C	162 30 56'38
22	F	49'59	16	F	43'73	9	F	56'74
27	G	50'43	19	C	44'19	10	G	56'64

128 *Separate Results for Mean N.P.D. of Stars observed*

R.A. 13^h. 42^m. to 14^h. 6^m.

Day.	Observer.	• • •	Day.	Observer.	• • •	Day.	Observer.	• • •
Lacaille 5678.			Lacaille 5696.			β Centauri		
May 15	G	158 46 29.03	June 9	F	157 1 43.75	Nov. 10	G	149 45 48.44
16	F	28.30	10	G	45.34			
19	C	27.03	18	C	45.78			
Lacaille 5677.			Lacaille 5707.			Lacaille 5781.		
May 27	G	162 38 31.98	June 3	G	155 45 52.03	May 22	F	164 15 11.44
June 3	G	31.39	8	C	51.13	27	G	12.01
5	I	32.88	11	I	51.61	28	I	11.95
			12	F	52.16			
Lacaille 5679.			Lacaille 5721.			Lacaille 5804.		
May 22	F	159 25 19.73	May 15	G	157 23 12.50	May 6	F	159 42 21.67
June 4	F	18.08	16	F	13.21	15	G	20.14
11	I	19.92	19	C	12.79	16	F	21.24
Lacaille 5687.			Lacaille 5740.			Lacaille 5811.		
June 12	F	155 53 16.87	May 22	F	155 10 58.17	May 19	C	159 7 11.91
13	G	17.61	27	G	56.59	June 3	G	12.01
15	C	16.12	28	I	56.66	4	F	11.91
Lacaille 5689.			Lacaille 5745.			Lacaille 5831.		
May 6	F	157 52 55.51	June 4	F	157 13 28.18	May 7	G	157 35 49.43
June 16	G	53.02	9	F	28.51	22	F	49.72
17	I	55.38	10	G	28.27	27	G	49.56
Lacaille 5693.			Lacaille 5755.			Lacaille 5836.		
June 19	F	157 36 49.50	May 6	F	154 55 38.47	May 28	I	155 6 31.70
23	G	48.17	June 3	G	36.84	June 8	C	32.78
24	C	48.94	5	I	36.64	9	F	31.64
Lacaille 5698.			Lacaille 5761.			Lacaille 5846.		
June 26	F	156 16 39.96	May 15	G	155 39 17.55	May 15	G	155 59 54.66
27	G	40.17	16	F	17.45	16	F	56.41
29	I	40.61	19	C	16.29	19	C	55.46

R.A. $14^h. 7^m.$ to $14^h. 28^m.$

Day.	Observer.	• • •	Day.	Observer.	• • •	Day.	Observer.	• • •
Lacaille 5853.			B.A.C. 4782.			Z Octantis.—Continued.		
June 4	F	157 27 21'91	May 16	F	157 9 4'26	July 9	I	177 37 40'90
9	F	21'88	June 19	F	2'64	13	I	40'97
10	G	21'40	23	G	3'44	16	I	40'59
Lacaille 5847.			Lacaille 5948.			17	F	40'78
May 27	G	163 23 0'20	May 15	G	157 3 28'96	18	C	40'96
June 3	G	0'63	19	C	28'42	20	F	41'29
5	I	0'55	27	G	28'80	21	C	40'21
α Boötis.			Lacaille 5944.			22	G	39'99
Dec. 2	G	70 9 37'21	June 8	C	163 8 8'83	23	I	40'61
Lacaille 5865.			17	I	8'81	24	C	39'28
May 7	G	162 58 31'75	18	C	9'44	27	I	39'33
16	F	30'66	Lacaille 5976.			29	C	40'68
19	C	31'53	May 15	G	157 22 13'62	30	I	40'78
Lacaille 5890.			16	F	13'75	31	F	40'43
May 15	G	157 37 13'32	July 28	G	13'94	Aug. 1	G	40'78
22	F	12'89	Lacaille 5986.			4	G	41'22
27	G	12'52	May 27	G	157 39 15'63	6	F	42'18
Lacaille 5899.			June 17	I	14'52	7	G	40'82
May 28	I	155 35 55'32	18	C	15'26	Z Octantis S.P.		
June 3	G	55'30	Z Octantis.			July 16	I	177 37 40'99
4	F	55'78	June 3	G	177 37 40'02	17	G	41'12
Lacaille 5908.			4	F	40'66	18	G	39'17
June 5	I	155 15 0'78	5	I	39'19	22	G	40'20
8	C	1'09	9	F	41'07	23	I	41'45
9	F	0'72	10	G	40'85	Aug. 1	G	39'28
			11	I	41'02	Oct. 26	F	39'92
			12	F	40'61	Dec. 2	F	39'16
			13	G	42'32	4	C	40'83
			16	G	40'65	5	G	42'43
			29	I	41'36	6	G	42'37
			July 3	I	39'99	7	F	41'02
			8	F	40'28	9	G	43'38
						12	G	40'79
						14	F	40'61
						15	G	41'93
						16	I	41'14
						17	F	40'17
						19	G	43'02
						21	I	40'54

R.A. $14^h. 28^m.$ to $14^h. 53^m.$

Day.	Observer.	. . .	Day.	Observer.	. . .	Day.	Observer.	. . .
Lacaille 5972.			Lacaille 6044.			Lacaille 6105.		
June 19	F	164 35 33.04	June 16	G	164 24 18.81	June 11	I	164 31 16.89
23	G	31.87	19	F	19.88	16	G	16.08
24	C	33.07	24	C	19.18	17	I	16.49
α Centauri.			Lacaille 6061.			Lacaille 6128.		
Nov. 9	F	150 18 51.32	May 27	G	160 0 24.81	May 15	G	160 59 1.33
10	G	52.12	June 11	I	24.46	June 3	G	2.44
			15	C	23.44	5	I	0.56
Lacaille 6011.			Lacaille 6066.			Lacaille 6136.		
May 16	F	159 7 50.77	May 7	G	162 40 3.61	June 8	C	157 28 38.99
19	C	50.78	16	F	4.12	9	F	38.89
27	G	51.22	19	C	2.85	10	G	39.86
Lacaille 6046.			Lacaille 6089.			Lacaille 6144.		
June 3	G	157 59 10.90	June 3	G	158 51 6.90	June 12	F	160 17 5.14
4	F	12.08	4	F	6.63	13	G	5.22
10	G	11.92	8	C	8.88	17	I	5.03
Lacaille 6045.			Lacaille 6085.			Lacaille 6150.		
June 15	C	160 4 0.57	May 7	G	162 38 49.37	May 7	G	161 41 24.81
17	I	1.17	16	F	48.77	16	F	25.15
18	C	0.91	19	C	47.80	19	C	25.39
23	G	1.49						
* 7 mag. R.A. $14^h. 37^m. 54^s.$			Lacaille 6093.			Lacaille 6158.		
June 26	F	155 59 40.29	May 27	G	159 20 29.39	May 7	G	161 40 25.22
27	G	39.72	June 10	G	30.28	16	F	24.66
29	I	41.40	12	F	29.42	19	C	23.32
Lacaille 6059.			Lacaille 6106.			Lacaille 6163.		
June 9	F	156 3 44.28	June 9	F	155 28 19.73	May 15	G	160 38 6.95
12	F	44.74	13	G	19.45	June 3	G	7.72
13	G	44.86	15	C	21.13	5	I	6.04

R.A. 14^h. 54^m. to 15^h. 9^m.

Day.	Observer.	o' ' "	Day.	Observer.	o' ' "	Day.	Observer.	o' ' "
Lacaille 6167.			Lacaille 6196.			Lacaille 6247		
June 18	C	161 24 38'47	June 3	G	162 17 14'26	June 15	C	161 19 27'36
19	F	37'89	17	I	14'12	17	I	28'62
23	G	37'44	18	C	13'95	18	C	28'55
Lacaille 6169.			Lacaille 6213.			* 7.8 mag. R.A. 15 ^h . 7 ^m . 4 ^s .		
June 8	C	164 58 19'28	June 4	F	157 13 35'19	July 4	C	155 59 32'88
10	G	17'95	13	G	35'00	18	C	34'04
11	I	18'62	15	C	33'93	21	C	32'75
Lacaille 6184.			Lacaille 6220.			Lacaille 6255.		
June 9	F	161 48 61'54	May 19	C	160 4 50'38	June 9	F	158 12 40'96
13	G	59'71	June 8	C	51'78	10	G	40'85
15	C	59'79	10	G	51'94	12	F	40'42
Lacaille 6185.			Lacaille 6222.			Lacaille 6264.		
June 12	F	160 13 9'27	June 9	F	159 36 4'77	June 26	F	156 1 51'98
24	C	8'64	12	F	4'42	July 3	I	51'47
26	F	8'77	24	C	4'98	6	G	51'65
Lacaille 6193.			Lacaille 6227.			Lacaille 6252.		
July 8	F	158 13 56'74	May 19	C	160 2 17'51	June 24	C	163 56 14'80
9	I	57'18	June 8	C	16'41	27	G	14'87
13	I	57'79	11	I	16'54	29	I	16'00
Lacaille 6189.			Lacaille 6234.			* 8.7 mag. R.A. 15 ^h . 8 ^m . 48 ^s .		
June 29	I	161 10 35'03	June 23	G	159 56 16'12	July 9	I	156 5 22'28
July 3	I	34'75	26	F	16 22	21	C	22'94
4	C	35'14				22	G	20'93
6	G	35'06						
Lacaille 6197.			Lacaille 6251.			Lacaille 6268.		
June 19	F	156 35 46'99	June 3	G	155 37 18'93	June 23	G	157 1 5'85
23	G	45'85	4	F	19'01	July 13	I	4'61
27	G	47'58	13	G	19'35	16	I	5'74

132 *Separate Results for Mean N.P.D. of Stars observed*

R.A. 15^h. 10^m. to 15^h. 27^m.

Day.	Observer.	o' ' "	Day.	Observer.	o' ' "	Day.	Observer.	o' ' "
β Libræ.			Lacaille 6323.			Lacaille 6371.		
Dec. 2	G	98 55 0'91	June 29	I	162 56 57'11	June 24	C	156 54 21'53
			July 3	I	55'96	26	F	21'67
			4	C	56'27	27	G	22'69
			6	G	55'87			
Lacaille 6290.			Lacaille 6331.			Lacaille 6369.		
June 3	G	155 45 9'06	June 12	F	161 12 44'93	June 4	F	162 24 38'12
4	F	8'82	13	G	44'82	10	G	37'80
8	C	9'09	17	I	44'29	12	F	38'85
Lacaille 6281.			Lacaille 6345.			Lacaille 6394.		
June 10	G	161 35 28'49	June 3	G	155 26 46'33	June 3	G	156 7 13'95
11	I	29'24	4	F	47'20	9	F	14'00
12	F	29'30	10	G	47'61	11	I	14'13
Lacaille 6285.			Lacaille 6346.			Lacaille 6397.		
June 13	G	160 51 59'69	May 19	C	157 2 35'01	June 15	C	155 11 7'83
15	C	59'61	June 8	C	33'59	17	I	7'51
17	I	60'30	11	I	35'39	18	C	8'82
Lacaille 6308.			Lacaille 6340.			Lacaille 6386.		
June 18	C	157 51 33'08	July 9	I	160 37 21'12	June 23	G	161 52 32'61
19	F	33'75	13	I	21'25	25	I	32'67
23	G	32'74	16	I	20'77	29	I	33'71
Lacaille 6321.			Lacaille 6358.			Lacaille 6390.		
June 26	F	155 30 39'96	June 18	C	155 30 19'93	June 26	F	163 1 38'79
27	G	40'62	19	F	19'86	27	G	36'15
July 17	F	39'67	23	G	19'86	July 3	I	36'96
* 7'6 mag. R.A. 15 ^h . 16 ^m . 10 ^s .			* 7'8 mag. R.A. 15 ^h . 20 ^m . 50 ^s .			Lacaille 6403.		
June 24	C	155 40 25'28	June 8	C	156 58 8'55	June 4	F	159 48 30'59
July 21	C	27'33	13	G	9'15	8	C	29'99
22	G	27'02				10	G	29'68

R.A. 15^h. 27^m. to 16^h. 3^m.

Day.	Observer.	° ' "	Day.	Observer.	° ' "	Day.	Observer.	° ' "
Lacaille 6401.			Lacaille 6518.			Lacaille 6597.		
June 12	F	161 19 40'87	June 12	F	158 13 25'62	May 27	G	158 4 59'57
13	G	41'18	13	G	25'23	June 9	F	58'67
24	C	39'25	17	I	25'41	10	G	59'29
α Coronæ Borealis.			Lacaille 6512.			Lacaille 6591.		
Dec. 21	G	62 51 35'66	June 18	C	162 46 26'09	June 12	F	161 35 43'57
Lacaille 6423.			24	C	25'98	13	G	44'31
June 3	G	159 51 21'98	25	I	26'40	23	G	43'13
9	F	22'28	Lacaille 6534.			Lacaille 6606.		
10	G	20'73	June 10	G	160 44 4'65	June 11	I	162 40 57'55
* 7'8 mag. R.A. 15 ^h . 31 ^m . 36 ^s .			29	I	5'16	24	C	56'57
July 3	I	159 53 14'07	* 7'6 mag. R.A. 15 ^h . 46 ^m . 12 ^s .			25	I	57'91
6	G	14'41	June 9	F	160 44 27'76	Lacaille 6613.		
13	I	14'62	10	G	30'01	June 26	F	160 42 43'80
Lacaille 6477.			11	I	29'71	27	G	42'36
May 27	G	155 2 38'42	Lacaille 6536.			29	I	43'27
June 3	G	38'02	June 8	C	162 5 38'88	β ¹ Scorpii.		
4	F	37'94	23	G	40'82	Dec. 20	G	109 27 31'06
α Serpentis.			27	G	40'26	21	G	32'69
Dec. 2	I	83 10 34'86	Lacaille 6542.			Lacaille 6682.		
Lacaille 6501.			May 27	G	163 8 56'17	May 27	G	160 40 6'79
May 27	G	157 15 13'34	June 12	F	56'65	June 8	C	6'71
June 3	G	11'50	13	G	54'82	9	F	6'86
8	C	10'98	Lacaille 6573.			Lacaille 6675.		
Lacaille 6494.			June 8	C	162 2 59'64	June 10	G	162 43 17'81
June 9	F	162 14 45'01	17	I	58'56	12	F	18'42
10	G	45'76	18	C	58'36	16	G	17'82
11	I	45'92						

134 *Separate Results for Mean N.P.D. of Stars observed*

R.A. $16^h. 4^m.$ to $16^h. 29^m.$

Day.	Observer.	o' ' "	Day.	Observer.	o' ' "	Day.	Observer.	o' ' "
Lacaille 6698.			Lacaille 6769.			α Scorpii.		
June 17	I	157 36 59'00	May 27	G	159 1 52'41	Nov. 11	I	116 8 60'79
18	C	59'10	June 27	G	51'67	19	C	59'71
23	G	59'95	29	I	51'84	Dec. 20	G	59'63
Lacaille 6681.			Lacaille 6768.			21	G	61'46
June 24	C	163 59 21'31	June 26	F	159 34 4'57	22	G	59'37
25	I	21'93	July 3	I	3'86	Lacaille 6844.		
26	F	22'51	6	G	5'21	June 25	I	155 13 29'74
Lacaille 6714.			Lacaille 6771.			26	F	30'39
July 3	I	161 33 41'74	June 15	C	159 47 45'40	27	G	29'91
6	G	40'80	23	G	47'54	Lacaille 6846.		
9	I	41'72	24	C	46'07	July 3	I	156 44 11'62
δ Ophiuchi.			Lacaille 6775.			6	G	10'56
Dec. 20	G	93 22 6'77	June 12	F	160 49 57'84	9	I	10'93
Lacaille 6723.			July 9	I	58'71	Lacaille 6847.		
June 10	G	158 13 24'23	17	F	58'71	June 8	C	162 2 30'45
27	G	25'30	Lacaille 6773.			15	C	30'79
29	I	25'39	Aug. 19	G	167 4 6'11	23	G	31'37
Lacaille 6749.			Lacaille 6809.			Lacaille 6865.		
June 12	F	156 34 53'23	May 27	G	160 42 42'42	June 24	C	158 2 27'98
17	I	52'70	June 12	F	41'89	27	G	27'19
18	C	52'85	15	C	$w = \frac{1}{2}$ 38'71	29	I	27'15
Lacaille 6737.			Lacaille 6814.			Lacaille 6861.		
June 23	G	159 50 23'95	June 18	C	161 37 14'32	June 12	F	160 19 38'48
24	C	22'02	23	G	14'90	25	I	38'63
25	I	23'07	24	C	14'17	26	F	38'72
						* 7.8 mag. R.A. $16^h. 29^m. 28^s.$		
						July 21	C	157 14 0'41
						24	C	1'82

R.A. 16^h. 30^m. to 16^h. 58^m.

Day.	Observer.	• • •	Day.	Observer.	• • •	Day.	Observer.	• • •
Lacaille 6881.			Lacaille 6947.			Lacaille 6989.		
July 6	G	157 10 58'60	June 15	C	157 27 24'17	June 26	F	159 3 53'40
17	F	57'57	18	C	23'98	29	I	55'69
21	C	57'67	23	G	23'60	July 3	I	54'49
			24	C	23'61			
Lacaille 6877.			Lacaille 6954.			Lacaille 6990.		
July 3	I	161 35 47'76	June 26	F	155 9 6'52	June 12	F	162 24 42'71
9	I	48'67	27	G	6'62	15	C	41'26
16	I	48'20	July 3	I	6'25	24	C	41'46
Lacaille 6892.			Lacaille 6945.			Lacaille 7039.		
June 8	C	157 30 28'93	July 6	G	159 57 2'49	June 23	G	158 5 25'65
15	C	29'33	9	I	2'55	25	I	26'04
24	C	30'69	16	I	2'07	26	F	26'50
Lacaille 6900.			Lacaille 6961.			Lacaille 7071.		
June 26	F	157 51 51'75	July 17	F	160 53 57'90	June 24	C	155 34 3'92
27	G	51'97	18	C	56'25	27	G	3'75
29	I	51'85	21	C	55'78	29	I	4'88
Lacaille 6906.			Lacaille 6828.			Lacaille 7069.		
July 6	G	156 52 10'59	Aug. 20	I	172 7 35'84	July 3	I	158 40 16'56
23	I	11'35				6	G	17'54
24	C	w = $\frac{1}{2}$ 15'97				9	I	16'82
Lacaille 6911.			Lacaille 6969.			Lacaille 7061.		
July 17	F	158 47 32'33	June 23	G	163 13 2'94	July 16	I	162 40 46'48
27	I	29'33	25	I	3'08	17	F	46'56
28	G	32'36	27	G	1'90	18	C	46'68
30	I	32'05						
Lacaille 6901.			Lacaille 6998.			Lacaille 7079.		
June 25	I	163 59 37'16	July 6	G	154 59 51'54	June 23	G	160 33 7'12
July 18	C	37'13	9	I	53'69	25	I	8'51
22	G	37'10	16	I	52'87	26	F	8'93

136 *Separate Results for Mean N.P.D. of Stars observed*R.A. 16^h. 59^m. to 17^h. 27^m.

Day.	Observer.	° ' "	Day.	Observer.	° ' "	Day.	Observer.	° ' "
Lacaille 7103.			Lacaille 7142.			Lacaille 7198.		
July 21	C	156 26 41'86	June 26	F	156 47 51'19	June 23	G	160 30 56'87
22	G	42'48	27	G	49'93	24	C	56'54
23	I	41'93	July 6	G	51'19	25	I	57'60
Lacaille 7081.			Lacaille 7146.			Lacaille 7240.		
June 27	G	164 22 29'67	June 25	I	159 53 46'50	June 13	G	164 49 12'12
July 6	G	28'01	July 17	F	46'82	24	C	10'11
9	I	28'41	21	C	46'51	25	I	11'47
Lacaille 7107.			Lacaille 7156.			Lacaille 7078.		
July 24	C	157 1 56'14	July 18	C	159 59 10'14	Aug. 20	I	175 9 13'94
27	I	56'84	22	G	9'88			
29	C	57'16				Lacaille 7290.		
Lacaille 7094.			Lacaille 7157.			June 26	F	155 54 19'16
June 15	C	162 24 0'12	July 3	I	160 18 16'90	27	G	17'48
29	I	2'15	6	G	18'49	July 3	I	16'56
July 3	I	0'42	9	I	17'93			
* 7 ⁸ mag. R.A. 17 ^h . 1 ^m . 20 ^s .			Lacaille 7162.			Lacaille 7285.		
June 24	C	155 31 39'05	June 24	C	157 38 3'35	July 6	G	160 36 31'57
July 30	I	40'03	26	F	6'51	9	I	30'40
31	F	41'82	27	G	4'78	16	I	30'84
Lacaille 7122.			Lacaille 7185.			Lacaille 7292.		
July 17	F	155 48 4'65	June 13	G	155 34 22'48	July 17	F	163 18 50'58
18	C	4'58	July 16	I	21'52	18	C	49'37
28	G	6'27	17	F	21'93	21	C	49'28
Lacaille 7104.			Lacaille 7197.			Lacaille 7316.		
July 16	I	164 27 27'17	June 26	F	156 15 47'76	June 23	G	157 46 28'52
22	G	27'25	27	G	47'18	27	G	26'63
23	I	27'36	July 6	G	46'26	July 6	G	27'46

R.A. 17^h. 29^m. to 18^h. 13^m.

Day.	Observer.	° ' "	Day.	Observer.	° ' "	Day.	Observer.	° ' "
Lacaille 7317.			Lacaille 7432.			Lacaille 7574.		
June 24	C	162 9 13'51	July 30	I	155 40 48'50	July 23	I	158 15 47'78
July 24	C	12'30	31	F	49'56	24	C	46'86
28	G	13'12	Aug. 1	G	48'56	28	G	46'83
Lacaille 7355.			Lacaille 7457.			Lacaille 7572.		
June 27	G	161 2 21'83	July 6	G	162 56 28'84	July 6	G	159 38 3'19
July 6	G	21'21	9	I	29'57	17	F	3'42
9	I	22'20	13	I	30'34	21	C	3'77
Lacaille 7359.			Lacaille 7456.			Lacaille 7628.		
June 24	C	159 52 25'46	July 16	I	163 59 53'97	July 6	G	159 34 5'38
July 16	I	26'82	17	F	54'46	16	I	5'36
17	F	27'04	21	C	54'21	17	F	6'06
Octantis.			Lacaille 7481.			Lacaille 7636.		
Aug. 20	I	177 39 21'60	July 23	I	156 31 42'53	July 18	C	159 26 31'11
Lacaille 7416.			24	C	42'49	21	C	29'37
July 6	G	155 26 46'63	28	G	43'77	23	I	30'18
9	I	47'30	Lacaille 7500.			σ Octantis.		
16	I	46'39	July 6	G	161 39 5'18	Mar. 23	I	179 16 41'78
Lacaille 7401.			21	C	5'06	June 16	G	37'81
July 18	C	162 16 33'90	23	I	5'85	Aug. 7	G	38'26
21	C	33'81	Lacaille 7507.			8	C	37'54
23	I	32'45	July 17	F	163 40 39'13	11	C	39'87
Lacaille 7415.			24	C	39'94	12	G	40'33
July 24	C	161 3 33'54	28	G	40'28	13	I	39'75
28	G	34'68	Lacaille 7532.			14	F	40'01
29	C	35'01	July 6	G	160 46 21'16	15	G	38'65
			16	I	21'45	17	F	40'30
			18	C	21'36	19	G	38'05
						20	I	39'75
						21	F	42'00
						22	G	39'07
						24	I	39'94
						29	B	39'50

R.A. 18^h. 13^m. to 18^h. 32^m.

Day.	Observer.	° ' "	Day.	Observer.	° ' "	Day.	Observer.	° ' "
<i>σ Octantis.—Continued.</i>			<i>σ Octantis S.P.—Continued.</i>			Lacaille 7706.		
Sept. 2	G	179 16 38.79	Mar. 23	I	179 16 39.84	July 6	G	160 19 53.39
3	F	39.20	24	F	39.25	17	F	53.19
5	G	39.59	26	C	37.49	18	C	52.83
7	I	39.87	Sept. 29	F	40.66	Lacaille 7707.		
9	G	39.69	Dec. 22	F	39.68	July 21	C	160 54 1.82
10	F	40.31	* 7 mag. R.A. 18 ^h . 14 ^m . 15 ^s .			28	G	0.10
11	G	39.29	July 18	C	159 22 44.65	30	I	1.83
12	C	41.13	21	C	45.99	Lacaille 7740.		
14	F	39.96	Aug. 11	C	43.62	July 16	I	160 24 37.03
16	C	37.45	Lacaille 7642.			23	I	37.03
17	B	39.48	July 24	C	164 2 16.72	24	C	38.85
18	C	40.15	28	G	17.23	Lacaille 7736.		
19	G	39.63	29	C	17.86	July 31	F	161 31 52.33
21	F	40.36	Lacaille 7666.			Aug. 1	G	53.75
22	G	40.06	July 6	G	161 50 58.38	3	C	52.70
23	C	39.55	13	I	59.31	Lacaille 7749.		
24	I	38.88	17	F	59.01	July 6	G	159 29 47.36
28	I	39.76	Lacaille 7678.			17	F	45.89
<i>σ Octantis S.P.</i>			July 23	I	161 24 23.01	21	C	46.11
Jan. 5	I	179 16 40.05	24	C	22.06	Lacaille 7752.		
7	F	39.33	28	G	23.21	July 28	G	162 55 44.12
15	F	40.02	Lacaille 7679.			29	C	43.25
20	F	39.59	Aug. 1	G	162 52 42.89	Aug. 7	G	42.10
22	G	41.15	3	C	42.91	<i>α Lyræ.</i>		
23	F	39.66	4	G	42.49	July 18	C	51 19 36.94
24	G	40.61	Lacaille 7697.			Nov. 16	I	59.89
26	F	39.16	July 29	C	156 21 50.29	19	C	56.53
27	G	39.00	30	I	50.03			
29	F	38.87	31	F	50.01			
30	G	40.05						
Feb. 2	F	39.47						
4	G	40.07						
7	G	39.70						
25	I	39.09						
27	F	39.89						
Mar. 3	G	38.56						
13	G	41.18						
14	F	38.87						

On July 18 the outside thermometer was 42°.6; the inside 51°.8;
 " 21 " " " 45°.4; " 51°.4.

R.A. 18^h. 33^m. to 19^h. 6^m.

Day.	Observer.	o' ' "	Day.	Observer.	o' ' "	Day.	Observer.	o' ' "
Lacaille 7785.			Lacaille 7848.			Lacaille 7964.		
July 13	I	154 59 7 ^h 07	Aug. 1	G	162 5 28 ^h 81	July 18	C	156 4 23 ^h 75
Aug. 1	G	8 ^h 64	3	C	29 ^h 48	21	C	25 ^h 06
4	G	8 ^h 54	4	G	28 ^h 97	23	I	25 ^h 34
Lacaille 7771.			Lacaille 7857.			Lacaille 7969.		
July 29	C	163 7 23 ^h 77	Aug. 7	G	160 37 24 ^h 69	July 29	C	157 39 25 ^h 40
Aug. 7	G	22 ^h 61	8	C	24 ^h 12	Aug. 3	C	25 ^h 94
8	C	23 ^h 67	11	C	24 ^h 49	4	G	24 ^h 39
Lacaille 7796.			Lacaille 7851.			Lacaille 7986.		
July 17	F	155 22 25 ^h 17	Aug. 13	I	161 41 36 ^h 33	July 24	C	159 23 58 ^h 39
31	F	24 ^h 33	14	F	38 ^h 64	31	F	60 ^h 39
Aug. 3	C	25 ^h 34	15	G	37 ^h 44	Aug. 7	G	60 ^h 78
Lacaille 7813.			Lacaille 7880.			Lacaille 7997.		
July 16	I	155 12 14 ^h 30	July 29	C	156 48 53 ^h 46	Aug. 8	C	156 52 27 ^h 45
23	I	14 ^h 60	Aug. 11	C	54 ^h 20	11	C	27 ^h 58
24	C	14 ^h 46	12	G	53 ^h 69	12	G	27 ^h 84
Lacaille 7789.			Lacaille 7897.			Lacaille 8004.		
Aug. 1	G	163 46 1 ^h 18	July 13	I	158 55 38 ^h 84	Aug. 1	G	155 26 24 ^h 94
3	C	1 ^h 72	17	F	38 ^h 38	3	C	26 ^h 73
4	G	1 ^h 68	18	C	36 ^h 48	13	I	25 ^h 16
Lacaille 7856.			Lacaille 7928.			14	F	26 ^h 52
July 13	I	157 23 14 ^h 75	July 21	C	161 44 20 ^h 08	Lacaille 8001.		
17	F	15 ^h 04	23	I	20 ^h 03	July 18	C	160 5 48 ^h 90
18	C	12 ^h 19	24	C	19 ^h 38	21	C	47 ^h 69
Lacaille 7864.			Lacaille 7944.			23	I	50 ^h 55
July 23	I	156 29 4 ^h 68	July 29	C	158 36 49 ^h 41	* 7 ^h 8 mag. R.A. 19 ^h . 6 ^m . 53 ^s .		
29	C	5 ^h 36	31	F	49 ^h 98	July 18	C	160 5 27 ^h 63
31	F	6 ^h 08	Aug. 1	G	49 ^h 95	21	C	28 ^h 80

R.A. 18^h. 13^m. to 18^h. 32^m.

Day.	Observer.	° ' "	Day.	Observer.	° ' "	Day.	Observer.	° ' "
<i>σ</i> Octantis.—Continued.			<i>σ</i> Octantis S.P.—Continued.			Lacaille 7706.		
Sept. 2	G	179 16 38.79	Mar. 23	I	179 16 39.84	July 6	G	160 19 53.39
3	F	39.20	24	F	39.25	17	F	53.19
5	G	39.59	26	C	37.49	18	C	52.83
7	I	39.87	Sept. 29	F	40.66	Lacaille 7707.		
9	G	39.69	Dec. 22	F	39.68	July 21	C	160 54 1.82
10	F	40.31	* 7 mag. R.A. 18 ^h . 14 ^m . 15 ^s .			28	G	0.10
11	G	39.29	July 18	C	159 22 44.65	30	I	1.83
12	C	41.13	21	C	45.99	Lacaille 7740.		
14	F	39.96	Aug. 11	C	43.62	July 16	I	160 24 37.03
16	C	37.45	Lacaille 7642.			23	I	37.03
17	B	39.48	July 24	C	164 2 16.72	24	C	38.85
18	C	40.15	28	G	17.23	Lacaille 7736.		
19	G	39.63	29	C	17.86	July 31	F	161 31 52.33
21	F	40.36	Lacaille 7666.			Aug. 1	G	53.75
22	G	40.06	July 6	G	161 50 58.38	3	C	52.70
23	C	39.55	13	I	59.31	Lacaille 7749.		
24	I	38.88	17	F	59.01	July 6	G	159 29 47.36
28	I	39.76	Lacaille 7678.			17	F	45.89
<i>σ</i> Octantis S.P.			July 23	I	161 24 23.01	21	C	46.11
Jan. 5	I	179 16 40.05	24	C	22.06	Lacaille 7752.		
7	F	39.33	28	G	23.21	July 28	G	162 55 44.12
15	F	40.02	Lacaille 7679.			29	C	43.25
20	F	39.59	Aug. 1	G	162 52 42.89	Aug. 7	G	42.10
22	G	41.15	3	C	42.91	<i>α</i> Lyrae.		
23	F	39.66	4	G	42.49	July 18	C	51 19 36.94
24	G	40.61	Lacaille 7697.			Nov. 16	I	59.89
26	F	39.16	July 29	C	156 21 50.29	19	C	56.53
27	G	39.00	30	I	50.03			
29	F	38.87	31	F	50.01			
30	G	40.05						
Feb. 2	F	39.47						
4	G	40.07						
7	G	39.70						
25	I	39.09						
27	F	39.89						
Mar. 3	G	38.56						
13	G	41.18						
14	F	38.87						

On July 18 the outside thermometer was 42°.6; the inside 51°.8;
 " 21 " " " 45°.4; " 51°.4.

R.A. 18^h. 33^m. to 19^h. 6^m.

Day.	Observer.	° ' "	Day.	Observer.	° ' "	Day.	Observer.	° ' "
Lacaille 7785.			Lacaille 7848.			Lacaille 7964.		
July 13	I	154 59 7 ⁰⁷	Aug. 1	G	162 5 28 ⁸¹	July 18	C	156 4 23 ⁷⁵
Aug. 1	G	8 ⁶⁴	3	C	29 ⁴⁸	21	C	25 ⁰⁶
4	G	8 ⁵⁴	4	G	28 ⁹⁷	23	I	25 ³⁴
Lacaille 7771.			Lacaille 7857.			Lacaille 7969.		
July 29	C	163 7 23 ⁷⁷	Aug. 7	G	160 37 24 ⁶⁹	July 29	C	157 39 25 ⁴⁰
Aug. 7	G	22 ⁶¹	8	C	24 ¹²	Aug. 3	C	25 ⁹⁴
8	C	23 ⁶⁷	11	C	24 ⁴⁹	4	G	24 ³⁹
Lacaille 7796.			Lacaille 7851.			Lacaille 7986.		
July 17	F	155 22 25 ¹⁷	Aug. 13	I	161 41 36 ³³	July 24	C	159 23 58 ³⁹
31	F	24 ³³	14	F	38 ⁶⁴	31	F	60 ³⁹
Aug. 3	C	25 ³⁴	15	G	37 ⁴⁴	Aug. 7	G	60 ⁷⁸
Lacaille 7813.			Lacaille 7880.			Lacaille 7997.		
July 16	I	155 12 14 ³⁰	July 29	C	156 48 53 ⁴⁶	Aug. 8	C	156 52 27 ⁴⁵
23	I	14 ⁶⁰	Aug. 11	C	54 ²⁰	11	C	27 ⁵⁸
24	C	14 ⁴⁶	12	G	53 ⁶⁹	12	G	27 ⁸⁴
Lacaille 7789.			Lacaille 7897.			Lacaille 8004.		
Aug. 1	G	163 46 11 ¹⁸	July 13	I	158 55 38 ⁸⁴	Aug. 1	G	155 26 24 ⁹⁴
3	C	1 ⁷²	17	F	38 ³⁸	3	C	26 ⁷³
4	G	1 ⁶⁸	18	C	36 ⁴⁸	13	I	25 ¹⁶
Lacaille 7856.			Lacaille 7928.			14	F	26 ⁵²
July 13	I	157 23 14 ⁷⁵	July 21	C	161 44 20 ⁰⁸	Lacaille 8001.		
17	F	15 ⁰⁴	23	I	20 ⁰³	July 18	C	160 5 48 ⁹⁰
18	C	12 ¹⁹	24	C	19 ³⁸	21	C	47 ⁶⁹
Lacaille 7864.			Lacaille 7944.			23	I	50 ⁵⁵
July 23	I	156 29 4 ⁶⁸	July 29	C	158 36 49 ⁴¹	* 7 ⁸ mag. R.A. 19 ^h . 6 ^m . 53 ^s .		
29	C	5 ³⁶	31	F	49 ⁹⁸			
31	F	6 ⁰⁸	Aug. 1	G	49 ⁹⁵	July 18	C	160 5 27 ⁶³
						21	C	28 ⁸⁰

140 *Separate Results for Mean N.P.D. of Stars observed*

R.A. 19^h. 10^m. to 19^h. 31^m.

Day.	Observer.	° ' "	Day.	Observer.	° ' "	Day.	Observer.	° ' "
Lacaille 8034.			* 7 mag. R.A. 19 ^h . 15 ^m . 20 ^s .			Lacaille 8114.		
July 22	G	158 36 14.64	July 22	G	164 14 1.45	July 31	F	159 36 52.15
29	C	13.82	Aug. 1	G	2.20	Aug. 3	C	52.42
Aug. 1	G	13.52	8	C	1.15	4	G	51.51
Lacaille 8042.			24	I	1.73	Lacaille 8113.		
Aug. 3	C	155 48 37.39	Lacaille 8046.			Aug. 7	G	159 52 42.28
4	G	37.20	July 29	C	164 2 8.41	8	C	43.67
7	G	38.55	Sept. 3	F	9.96	11	C	42.76
8	C	36.69	5	G	8.27	12	G	43.25
Lacaille 8036.			Lacaille 8048.			Lacaille 8119.		
Aug. 11	C	161 42 9.28	July 29	C	164 2 49.41	Aug. 17	F	156 11 23.30
17	F	9.66	Sept. 3	F	48.27	19	G	23.36
22	G	8.78	5	G	50.62	20	I	21.18
Lacaille 8020 S.P.			Lacaille 8059.			Lacaille 8127.		
Mar. 14	F	165 24 48.50	Aug. 3	C	163 45 4.55	Aug. 1	G	156 57 46.28
* 7 mag. R.A. 19 ^h . 12 ^m . 21 ^s .			4	G	5.69	13	I	45.36
Aug. 11	C	161 42 15.35	7	G	4.36	21	F	45.72
17	F	17.89	Lacaille 8078.			Lacaille 8112.		
22	G	16.45	July 21	C	158 41 10.88	July 29	C	164 44 31.91
Lacaille 8031.			30	I	13.26	Aug. 11	C	32.50
Aug. 12	G	163 19 47.28	31	F	13.31	22	G	32.34
20	I	47.01	Lacaille 8096.			24	I	31.54
21	F	47.16	July 22	G	159 21 6.07	Lacaille 8148.		
Lacaille 8056.			29	C	6.86	July 22	G	160 18 24.85
July 31	F	159 52 42.60	Aug. 1	G	6.81	31	F	24.70
Aug. 13	I	42.10	α Vulpeculæ.			Aug. 1	G	26.04
19	G	42.82	Oct. 6	C	65 35 19.14	Lacaille 8147.		
						Aug. 3	C	160 55 4.84
						7	G	4.15
						8	C	5.40

R.A. $19^h 33^m$. to $19^h 49^m$.

Day.	Observer.	o' ' "	Day.	Observer.	o' ' "	Day.	Observer.	o' ' "
Lacaille 8145.			Lacaille 8190.			Lacaille 8213.		
Aug. 12	G	164 25 32'75	July 22	G	155 13 1'70	Aug. 11	C	164 20 40'17
17	F	33'73	29	C	1'36	20	I	43'05
19	G	32'84	31	F	1'62	22	G	41'27
Oct. 2	I	32'39	Lacaille 8195.			Lacaille 8219.		
Lacaille 8151.			Aug. 17	F	155 54 36'24	Sept. 7	I	163 14 18'71
July 29	C	163 49 26'58	Sept. 4	C	36'31	9	G	20'29
30	I	28'21	9	G	36'21	10	F	20'84
Aug. 11	C	27'22	10	F	36'06	Lacaille 8229.		
Lacaille 8156.			Lacaille 8187.			Aug. 24	I	159 5 26'17
Aug. 13	I	162 48 21'54	Aug. 11	C	161 43 13'32	Sept. 3	F	26'69
20	I	22'53	20	I	14'34	4	C	25'87
21	F	23'29	21	F	15'55	5	G	26'34
Lacaille 8171.			Lacaille 8203.			Lacaille 8244.		
Aug. 29	B	162 4 42'31	Aug. 1	G	162 26 16'02	July 22	G	157 16 41'14
Sept. 3	F	40'35	3	C	16'15	29	C	40'58
5	G	40'55	7	G	14'86	Aug. 1	G	41'53
7	I	40'00	Lacaille 8205.			β Aquilæ.		
Lacaille 8168.			July 29	C	164 27 29'89	Oct. 10	G	83 54 23'36
Aug. 7	G	163 6 1'59	Aug. 8	C	31'08	Lacaille 8254.		
22	G	1'00	12	G	29'55	Aug. 3	C	155 8 14'07
24	I	3'24	α Aquilæ.			4	G	14'40
Lacaille 8177.			Dec. 2	F	81 27 44'94	7	G	14'99
Aug. 1	G	159 38 40'96	Lacaille 8224.			Lacaille 8251.		
3	C	41'81	Aug. 13	I	159 29 25'49	July 22	G	157 16 51'47
4	G	40'86	17	F	26'16	29	C	50'99
Lacaille 8184.			19	G	25'89	Aug. 1	G	51'57
Aug. 8	C	157 7 13'82						
12	G	14'41						
19	G	14'44						

R.A. 19^h. 52^m. to 20^h. 23^m.

Day.	Observer.	° ' "	Day.	Observer.	° ' "	Day.	Observer.	° ' "
Lacaille 8267.			Lacaille 8335.			Lacaille 8375.		
Aug. 8	C	157 38 43.67	Aug. 8	C	163 11 20.85	Aug. 12	G	164 41 15.45
12	G	44.93	12	G	21.90	13	I	16.62
13	I	44.74				19	G	15.20
Lacaille 8259.			Lacaille 8353.			Lacaille 8412.		
Aug. 19	G	164 34 10.07	Aug. 13	I	157 49 56.67	Aug. 1	G	159 28 49.08
20	I	10.46	17	F	55.86	3	C	48.97
21	F	8.52	19	G	57.61	7	G	49.09
Lacaille 8273.			Lacaille 8342.			Lacaille 8411.		
Aug. 1	G	159 54 26.46	Aug. 22	G	164 21 51.09	Aug. 8	C	162 16 46.00
7	G	25.54	24	I	50.52	12	G	45.16
17	F	26.29	Sept. 7	I	51.47	13	I	45.59
Lacaille 8270.			Lacaille 8371.			ρ Capricorni.		
Aug. 3	C	161 54 30.67	Aug. 1	G	157 42 16.18	Oct. 7	G	108 13 42.67
22	G	29.87	3	C	16.18	15	G	41.54
24	I	29.96	7	G	16.30			
			8	C	16.92			
Lacaille 8295.			Lacaille 8374.			Lacaille 8424.		
Sept. 3	F	156 29 59.76	Aug. 12	G	157 8 28.14	July 29	C	161 36 45.09
4	C	59.21	17	F	28.00	Aug. 3	C	46.04
7	I	59.43	19	G	29.07	19	G	47.37
10	F	60.57				22	G	45.36
Lacaille 8284.			α ³ Capricorni.			Lacaille 8431.		
Aug. 12	G	162 0 13.61	Oct. 7	G	102 56 3.32	July 29	C	161 41 13.13
Sept. 5	G	13.66				Aug. 3	C	12.97
9	G	13.76						
Lacaille 8332.			Lacaille 8372.			Lacaille 8437.		
Aug. 1	G	163 21 31.59	Aug. 21	F	162 3 20.56	Aug. 7	G	160 2 6.76
3	C	30.67	22	G	21.77	14	F	8.31
7	G	29.53	Sept. 24	I	21.22	17	F	6.48

R.A. 20^h. 23^m. to 20^h. 46^m.

Day.	Observer.	° ' "	Day.	Observer.	° ' "	Day.	Observer.	° ' "
Lacaille 8436.			Lacaille 8488.			Lacaille 8519.		
Aug. 12	G	161 29 52 ⁹³	Aug. 19	G	157 12 7 ⁴⁰	Aug. 7	G	159 14 47 ²⁹
Sept. 18	C	53 ⁷⁹	22	G	5 ¹⁹	Sept. 18	C	48 ⁸⁶
19	G	53 ⁹¹	24	I	6 ⁰⁵	21	F	48 ⁴⁹
24	I	51 ¹²						
Lacaille 8445.			* 8 mag. R.A. 20 ^h . 30 ^m . 43 ^s .			Lacaille 8521.		
Aug. 21	F	159 52 42 ⁵³	Sept. 29	C	160 23 19 ¹⁵	Aug. 7	G	159 14 0 ⁹⁷
24	I	42 ³⁹	Lacaille 8467.			24	I	1 ⁴⁰
Sept. 10	F	43 ⁸²	Sept. 14	F	160 18 5 ⁰⁰	Sept. 18	C	2 ¹²
Lacaille 8462.			21	F	4 ⁹⁸	21	F	1 ²⁶
Aug. 19	G	155 27 50 ¹⁴	Oct. 1	F	4 ³⁴	Lacaille 8510.		
20	I	49 ¹⁷	Lacaille 8500.			Aug. 8	C	164 9 8 ⁶⁷
22	G	50 ²⁷	Aug. 7	G	156 39 11 ⁸⁴	13	I	7 ⁸⁰
* 6.7 mag. R.A. 20 ^h . 25 ^m . 58 ^s .			8	C	11 ⁶⁹	20	I	8 ⁴⁹
Aug. 8	C	161 31 39 ⁰⁴	13	I	10 ⁶¹	Lacaille 8578.		
13	I	37 ⁹¹	Lacaille 8502.			Aug. 7	G	158 54 9 ²⁶
Sept. 14	F	39 ¹¹	Sept. 3	F	162 40 6 ²⁷	13	I	8 ¹⁰
18	C	38 ⁹⁷	14	F	5 ⁰⁹	17	F	9 ⁴⁵
* 8.7 mag. R.A. 20 ^h . 28 ^m . 6 ^s .			17	B	5 ⁷³	Lacaille 8577.		
Sept. 28	I	160 23 23 ⁷³	19	G	4 ⁸⁵	Aug. 19	G	159 37 27 ⁵⁴
29	C	25 ⁴⁹	Lacaille 8514.			20	I	27 ⁸²
Oct. 1	F	23 ⁴⁷	Aug. 14	F	155 21 38 ⁹⁶	21	F	28 ⁶⁷
Lacaille 8468.			17	F	39 ⁷⁶	Lacaille 8573.		
Aug. 7	G	161 22 12 ⁵⁸	19	G	40 ⁰²	Aug. 24	I	160 54 10 ⁰⁸
14	F	13 ⁵⁵	Lacaille 8501.			29	B	9 ⁰²
17	F	12 ⁹³	Aug. 21	F	162 59 20 ¹⁷	Sept. 3	F	9 ⁵⁵
Lacaille 8469.			Sept. 9	G	18 ⁹²	5	G	9 ⁰⁹
Sept. 3	F	162 22 13 ⁵⁸	10	F	19 ²⁰	* 7 mag. R.A. 20 ^h . 46 ^m . 23 ^s .		
9	G	14 ⁶¹				Sept. 3	F	160 54 13 ¹⁷
10	F	12 ³²						

R.A. 20^h. 47^m. to 21^h. 13^m.

Day.	Observer.	o' ' "	Day.	Observer.	o' ' "	Day.	Observer.	o' ' "
Lacaille 8588.			* 7 mag. R.A. 21 ^h . 0 ^m . 26 ^s .			Lacaille 8721.		
Sept. 9	G	160 3 9'17	Aug. 7	G	160 40 14'76	Sept. 3	F	155 12 12'65
10	F	10'01	19	G	14'44	7	I	12'31
14	F	9'13				14	F	13'92
32 Vulpeculae.			Lacaille 8668.			Oct. 17	B	11'45
Oct. 2	I	62 25 15'21	Aug. 7	G	160 38 15'56	Lacaille 8710.		
Lacaille 8611.			17	F	14'72	Sept. 18	C	164 22 59'86
Aug. 7	G	158 41 48'02	19	G	17'56	19	G	60'16
17	F	49'09	B Octantis.			23	C	59'68
Sept. 7	I	47'54	May 6	G	179 25 43'00	Lacaille 8729.		
Lacaille 8627.			8	I	41'34	Aug. 20	I	162 6 4'68
Aug. 7	G	159 8 36'64	Sept. 28	I	43'66	24	I	w = $\frac{1}{2}$ (1'09)
19	G	37'21	B Octantis S.P.			29	B	4'10
20	I	36'18	Mar. 21	C	179 25 42'15	Sept. 9	G	4'72
Lacaille 8623.			23	I	40'99	Lacaille 8745.		
Sept. 3	F	163 53 45'43	24	F	40'58	Aug. 19	G	160 16 6'68
7	I	46'50	25	G	41'77	Sept. 3	F	7'51
9	G	45'93	26	C	40'48	7	I	6'22
14	F	46'73	May 6	F	43'22	Lacaille 8746.		
Lacaille 8625.			7	G	42'77	Oct. 2	I	163 7 48'40
Aug. 17	F	163 39 49'44	8	I	43'95	10	G	49'45
24	I	49'16	Lacaille 8673.			12	I	49'04
Sept. 5	G	48'14	Aug. 20	I	161 22 9'73	Lacaille 8744.		
Lacaille 8637.			24	I	9'64	Sept. 14	F	162 20 7'84
Sept. 17	B	163 3 2'87	Sept. 3	F	9'94	24	I	7'08
18	C	2'06	Lacaille 8696.			28	I	8'89
23	C	1'39	Sept. 5	G	163 49 14'59	Lacaille 8757.		
24	I	1'91	9	G	15'26	Sept. 10	F	158 46 11'78
			10	F	15'37	29	C	11'21
						Oct. 1	F	10'48

R.A. 21^h. 15^m. to 21^h. 45^m.

Day.	Observer.	o' ' "	Day.	Observer.	o' ' "	Day.	Observer.	o' ' "
Lacaille 8778.			Lacaille 8828.			Lacaille 8894.		
Aug 20	I	155 56 3'33	Sept. 18	C	164 38 47'07	Sept. 9	G	162 43 26'50
Sept. 17	B	2'37	19	G	47'79	23	C	25'51
18	C	3'36	23	C	48'59	24	I	25'93
19	G	2'54						
33 Capricorni.			Lacaille 8835.			Lacaille 8899.		
Oct. 19	I	111 23 11'01	Sept. 24	I	162 3 57'54	Sept. 14	F	160 12 48'95
			28	I	58'69	29	C	49'04
			29	C	59'86	Oct. 1	F	49'84
Lacaille 8782.			Lacaille 8845.			Lacaille 8903.		
Aug. 24	I	160 2 50'16	Oct. 1	F	161 22 23'60	Sept. 10	F	155 17 41'10
Sept. 3	F	50'72	5	F	22 41	18	C	41'13
14	F	51'83	7	G	22'09	28	I	41'34
* 7.8 mag. R.A. 21 ^h . 18 ^m . 13.			10	G	22'08			
Sept. 5	G	165 0 21'43				Lacaille 8910.		
Lacaille 8786.			α Capricorni.			Oct. 5	F	164 0 49'86
Aug. 19	G	164 26 30'56	Oct. 19	I	110 + 44'12	6	C	49'95
Sept. 7	I	31'19				7	G	48'39
9	G	31'06						
Lacaille 8806.			Lacaille 8860.			* 6 mag. R.A. 21 ^h . 44 ^m . 45 ^s .		
Sept. 18	C	160 2 26'64	Aug. 22	G	161 34 58'78	Sept. 23	C	160 42 22'87
19	G	25'85	Sept. 10	F	59'57	29	C	22'99
23	C	26'86	14	F	59'08	Oct. 12	I	21'80
β Aquarii.			Lacaille 8869.			Lacaille 8925.		
Oct. 2	I	96 7 27'51	Sept. 7	I	163 15 36'36	Sept. 7	I	160 39 33'46
7	G	26'85	17	B	36'78	23	C	33'06
12	I	27'79	18	C	35'42	29	C	34'06
			19	G	35'04			
Lacaille 8842.			α Pegasi.			* 7 mag. R.A. 21 ^h . 45 ^m . 5 ^s .		
Aug. 19	G	155 23 10'10	Oct. 5	F	80 42 6'08	Oct. 1	F	161 7 43'42
22	G	10'84	23	I	6'97	9	C	44'29
Sept. 10	F	10'27				10	G	42'92

146 *Separate Results for Mean N.P.D. of Stars observed*R.A. 21^h. 47^m. to 22^h. 13^m.

Day.	Observer.	° ' "	Day.	Observer.	° ' "	Day.	Observer.	° ' "
16 Pegasi.			Lacaille 9035.			C Octantis S.P. (Continued.)		
Oct. 23	I	64 40 0'45	Sept. 14	F	161 16 26'74	May 14	I	176 36 18'44
Lacaille 8970.			21	F	26'73	15	G	17'90
Sept. 9	G	155 50 26'77	24	I	26'32	16	F	16'47
10	F	26'67	C Octantis.			18	I	18'28
14	F	26'40	May 15			19	C	19'61
Lacaille 8986.			27	G	176 36 17'12	22	F	18'18
Sept. 7	I	155 20 1'61	28	I	18'10	27	G	17'66
18	C	2'78	Oct. 5	F	18'03	28	I	16'43
19	G	2'95	9	C	17'61	29	C	16'47
Lacaille 8988.			12	I	18'26	Lacaille 9062.		
Sept. 21	F	159 21 1'58	16	F	18'64	Sept. 10	F	158 56 5'45
23	C	0'41	19	I	18'13	18	C	4'20
24	I	0'75	20	C	19'30	28	I	5'30
Lacaille 8994.			22	F	18'85	θ Aquarii.		
Sept. 29	C	160 53 52'39	23	I	17'76	Oct. 6		
Oct. 1	F	52'57	24	G	18'43	C	98 24 34'86	
5	F	52'16	26	B	17'52	Lacaille 9079.		
Lacaille 9002.			27	G	18'25	Sept. 29	C	163 26 14'23
Sept. 19	G	161 31 6'08	29	I	17'72	Oct. 1	F	15'01
23	C	3'51	30	G	18'31	5	F	14'67
28	I	4'43	Nov. 2	I	18'97	* 7'6 mag. R.A. 22 ^h . 13 ^m . 18 ^s .		
α Aquarii.			3	G	18'84	Sept. 29	C	163 26 14'13
Oct. 6	C	90 55 51'72	6	F	19'35	Oct. 1	F	14'64
9	C	52'05	11	I	19'73	5	F	13'84
12	I	52'20	12	F	19'30	Lacaille 9082.		
Lacaille 9016.			13	G	18'24	Sept. 10	F	162 51 59'45
Sept. 7	I	158 56 37'56	C Octantis S.P.			18	C	58'12
9	G	37'15	Mar. 21	C	176 36 17'71	23	C	59'90
18	C	37'78	23	I	17'43			
			25	G	16'69			
			26	C	15'39			
			30	I	17'32			
			Apr. 1	G	19'35			
			2	I	16'95			
			4	F	17'53			

R.A. 22^h. 15^m. to 22^h. 46^m.

Day.	Observer.	° ' "	Day.	Observer.	° ' "	Day.	Observer.	° ' "
Lacaille 9099.			Lacaille 9158.			Lacaille 9227.		
Sept. 14	F	161 3 56.46	Sept. 29	C	161 36 49.47	Sept. 21	F	156 13 22.19
24	I	56.67	Oct. 9	C	49.10	Oct. 5	F	23.11
28	I	56.83	10	G	49.75	7	G	22.46
Lacaille 9114.			η Aquarii.			Lacaille 9232.		
Sept. 18	C	155 36 21.67	Oct. 29	I	90 45 58.86	Oct. 13	G	161 35 49.62
21	F	22.51	30	G	59.02	14	C	49.49
23	C	21.90	Lacaille 9192.			15	G	48.56
Lacaille 9117.			Sept. 14	F	159 3 22.50	Lacaille 9230.		
Sept. 14	F	158 7 40.23	17	B	21.97	Oct. 9	C	161 0 47.77
Oct. 5	F	38.90	18	C	22.73	10	G	48.36
6	C	38.81	23	C	21.79	12	I	48.43
Lacaille 9134.			ζ Pegasi.			π ³ Aquarii		
Sept. 10	F	159 45 9.40	Oct. 9	C	79 49 32.47	Oct. 20	C	104 15 23.85
18	C	9.39	10	G	33.54	Lacaille 9262.		
21	F	9.30	16	F	33.52	Sept. 18	C	165 32 1.89
56 Aquarii.			29	I	34.05	21	F	2.14
Oct. 20	C	105 13 44.11	Lacaille 9214.			Lacaille 9276.		
Lacaille 9143.			Sept. 24	I	158 54 56.16	Sept. 24	I	160 44 44.84
Sept. 23	C	163 12 13.30	28	I	55.79	28	I	44.96
24	I	13.18	29	C	56.64	29	C	45.11
28	I	12.50	* 7 mag. R.A. 22 ^h . 37 ^m . 53 ^s .			Lacaille 9279.		
Lacaille 9155.			Sept. 18	C	160 11 20.59	Oct. 1	F	159 46 22.89
Oct. 1	F	163 21 42.87	23	C	21.37	6	C	24.09
6	C	42.63	Oct. 1	F	21.83	7	G	23.55
7	G	42.25	Lacaille 9220.			74 Aquarii.		
			Sept. 18	C	160 8 16.93	Nov. 17	F	102 17 8.51
			23	C	17.48			
			Oct. 6	C	16.62			

148 *Separate Results for Mean N.P.D. of Stars observed*

R.A. 22^h. 47^m. to 23^h. 23^m.

Day.	Observer.	• • •	Day.	Observer.	• • •	Day.	Observer.	• • •
Lacaille 9291.			Lacaille 9375.			ψ ³ Aquarii.		
Oct. 9	C	159 27 18.80	Oct. 6	C	157 32 29.35	Nov. 17	F	99 52 12.97
10	G	19.59	7	G	28.71	Lacaille 9450.		
12	I	17.99	9	C	27.85	Sept. 18	C	162 51 18.34
Lacaille 9293.			Lacaille 9390.			21	F	18.26
Oct. 6	C	164 27 0.98	Sept. 23	C	160 44 47.35	23	C	18.19
13	G	1.91	29	C	46.91	Lacaille 9459.		
16	F	3.32	Oct. 6	C	46.23	Sept. 29	C	164 31 46.63
α Piscis Australis			τ Octantis S.P.			Oct. 5	F	46.56
Oct. 7	G	120 17 21.83	Mar. 21	C	178 10 23.71	6	C	46.61
β Piscium			23	I	21.88	Lacaille 9469.		
Nov. 12	F	86 51 28.94	24	F	20.32	Sept. 18	C	157 16 24.19
Lacaille 9337.			25	G	21.04	23	C	23.76
Sept. 14	F	159 30 3.33	26	C	20.90	Oct. 1	F	23.01
17	B	3.50	Apr. 9	I	22.27	κ Piscium.		
18	C	3.55	10	F	21.52	Oct. 27	G	89 26 1.67
21	F	4.30	13	I	23.07	Nov. 2	I	1.94
α Pegasi.			20	F	22.32	Lacaille 9487.		
Oct. 5	F	75 28 19.40	Lacaille 9402.			Oct. 9	C	164 49 46.51
13	G	20.90	Sept. 21	F	160 56 17.07	10	G	48.71
16	F	20.22	28	I	16.92	14	C	47.68
Lacaille 9358.			Oct. 7	G	15.94	28	C	47.67
Sept. 18	C	164 16 2.96	γ Tucanæ.			29	I	47.52
23	C	1.04	Nov. 6	F	148 55 33.51	Nov. 4	C	47.50
28	I	2.25	Lacaille 9418.			Lacaille 9492.		
Lacaille 9374.			Sept. 29	C	158 9 33.25	Oct. 13	G	159 46 2.16
Sept. 21	F	158 33 24.14	Oct. 3	C	34.42	15	G	0.78
29	C	23.37	5	F	35.16	16	F	2.06
Oct. 1	F	23.34	γ Piscium.					
			Oct. 14	C	87 24 21.48			
			27	G	20.72			

R.A. 23^h. 24^m. to 23^h. 46^m.

Day.	Observer.	° ' "	Day.	Observer.	° ' "	Day.	Observer.	° ' "
Lacaille 9493.			♄ Piscium.			Lacaille 9581.		
Sept. 28	I	164 53 45 ⁸²	Oct. 30	G	85 3 23 ⁷³	Oct. 10	G	163 47 58 ³³
29	C	44 ⁵⁹	Nov. 6	F	23 ²⁴	Nov. 4	C	57 ⁵⁸
Oct. 3	C	44 ⁵⁴	19	C	24 ⁰³	6	F	57 ²⁶
9	C	41 ⁰⁰	Lacaille 9562.			Lacaille 9584.		
12	I	44 ⁹⁵	Oct. 1	F	161 31 9 ⁶⁸			
14	C	45 ⁸⁸	3	C	8 ⁵⁴	Oct. 13	G	162 0 20 ²⁰
Nov. 4	C	45 ⁶⁷	9	C	7 ⁹⁰	14	C	18 ¹⁶
Lacaille 9505.			Lacaille 9558.			15	G	18 ³⁸
Oct. 6	C	164 25 54 ⁴⁷	Oct. 13	G	164 54 53 ³²	Lacaille 9588.		
9	C	54 ¹⁹	14	C	52 ⁹⁷	Oct. 27	G	159 5 33 ⁸¹
22	F	54 ²⁴	15	G	52 ⁵²	29	I	34 ⁷²
Lacaille 9511.			Lacaille 9566.			30	G	35 ⁵³
Oct. 16	F	161 39 43 ⁷⁵	Oct. 23	I	161 11 29 ⁹⁰	Lacaille 9592.		
23	I	43 ⁶⁰	24	G	29 ⁹⁵	Oct. 1	F	157 16 5 ⁸¹
24	G	43 ⁰²	27	G	29 ⁸⁵	16	F	6 ⁸⁷
Lacaille 9518.			Lacaille 9571.			24	G	6 ⁰⁸
Sept 21	F	155 23 10 ⁵⁸	Sept 29	C	155 6 17 ³²	Lacaille 9608.		
Oct. 10	G	10 ¹⁷	Oct. 5	F	17 ⁷¹	Oct. 5	F	159 47 30 ⁶³
13	G	10 ⁴⁰	6	C	18 ⁰²	6	C	31 ³⁵
Lacaille 9531.			12	I	17 ³⁴	9	C	28 ⁷⁰
			16	F	17 ⁴¹	Lacaille 9627.		
Sept. 29	C	161 36 5 ⁸⁶	28	C	18 ⁷⁰	Sept. 29	C	163 6 2 ¹⁶
Oct. 1	F	6 ⁰⁵	Lacaille 9572.			Oct. 1	F	3 ²⁷
3	C	6 ²⁷	Sept. 29	C	155 2 20 ¹⁰	3	C	2 ⁴⁸
Lacaille 9537.			Oct. 29	I	20 ⁴⁷	24 Piscium.		
Oct. 6	C	163 23 40 ²³	Lacaille 9580.			Nov. 18	G	93 51 17 ⁰⁴
9	C	38 ⁷²	Oct. 31	C	161 46 24 ¹⁴			
10	G	39 ⁸⁵	Nov. 2	I	25 ⁴⁶			
			3	G	25 ²⁶			

150 *Separate Results for Mean N.P.D. of Stars observed*

R.A. 23^h. 50^m. to 23^h. 58^m.

Day.	Observer.	° ' "	Day.	Observer.	° ' "	Day.	Observer.	° ' "
Lacaille 9661.			♉ Piscium.			29 Piscium.		
Oct. 5	F	154 59 52.06	Oct. 13	G	83 50 2.65	Oct. 22	F	93 43 43.87
7	G	52.49	14	C	1.69	Nov. 18	G	42.91
9	C	50.53	Nov. 19	C	3.04	Lacaille 9708.		
27 Piscium.			Lacaille 9678.			Oct. 1	F	163 35 51.88
						5	F	51.96
						9	C	51.77
						Lacaille 9710.		
Nov. 12	F	94 15 18.35	Sept. 29	C	156 16 40.80	Sept. 29	C	162 8 16.56
16	F	18.38	Oct. 3	C	40.16	Oct. 3	C	17.86
17	F	17.82	6	C	40.83	6	C	16.66

ROYAL OBSERVATORY,
CAPE OF GOOD HOPE.

CATALOGUE

OF

CONCLUDED MEAN RIGHT ASCENSIONS

AND

MEAN NORTH POLAR DISTANCES,

FOR 1874, JANUARY 1,

OF

STARS OBSERVED DURING THE YEAR 1874.

No.	Star's Name.	Magnitude.	Mean R.A. 1874, Jan. 1.	Fraction of Year for Mean.	No. of Obs. of R.A.	Precess. or Ann. Var. in R.A.	Mean N.P.D. 1874, Jan. 1.	Fraction of Year for Mean.	No. of Obs. of N.P.D.	Precess. or Ann. Var. in N.P.D.
			^h ^m ^s			^s	[°] ['] ["]			["]
1	α Andromedæ ...	2	0 1 52.62	0.86	2	+3.087	61 36 20.07	0.93	1	-19.90
2	Lacaille 9743 ...	7	0 2 26.04	0.77	3	+3.020	164 56 23.07	0.77	3	-20.05
3	Lacaille 9755 ...	6.5	0 4 26.28	0.75	3	+2.979	163 55 35.27	0.75	3	-20.05
4	γ Pegasi	3.2	0 6 44.93	0.85	7	+3.082	75 31 1.00	0.83	4	-20.03
5	Lacaille 32	7.6	0 10 25.08	0.77	4	+2.893	161 5 36.51	0.77	4	-20.03
6	\circ Octantis	7	0 12 58.68	0.48	6	-1.540	179 3 48.46	0.76	26	-20.02
	\circ Octantis S.P.				7		48 88	0.45	10	
7	ϵ Ceti	3.4	0 13 0.43	0.94	1	+3.060	99 30 24.74	0.94	1	-20.02
8	Lacaille 40	4	0 13 29.78	0.79	3	+2.899	155 36 55.23	0.79	3	-20.02
9	Lacaille 53	5.4	0 14 47.64	0.78	4	+2.831	160 19 28.51	0.78	4	-20.01
10	Lacaille 80		0 18 28.12	0.78	4	+2.724	162 46 47.09	0.78	2	-19.99
11	β Hydri	3	0 19 5.66	0.58	44	+3.276	167 57 50.43	0.91	32	20.25
	β Hydri S.P.				24		49.61	0.93	10	
12	Lacaille 93	6.7	0 21 0.55	0.78	3	+2.736	160 0 15.67	0.78	3	-19.97
13	ι Ceti	6	0 23 36.45	0.83	11	+3.059	94 39 13.42	0.92	2	-19.94
14	Lacaille 139	5.6	0 28 1.77	0.77	2	+2.572	161 57 39.47	0.77	3	-19.90
15	Lacaille 151	6	0 31 3.89	0.78	3	+2.672	155 49 5.92	0.78	3	-19.87
16	Lacaille 154	7	0 31 15.82	0.80	3	+2.571	160 7 37.44	0.80	3	-19.87
17	ϵ Andromedæ ...	4	0 31 54.01	0.83	2	+3.174				
18	Lacaille 171	7	0 33 28.08	0.82	3	+2.363	164 39 8.51	0.82	3	-19.84
19	Lacaille 173	6.7	0 33 43.15	0.80	4	+2.397	163 49 51.95	0.80	4	-19.84
20	μ Phœnicis	4.5	0 35 23				136 46 36.58	0.86	1	-19.82
21	Lacaille 179	7	0 35 29.89	0.78	3	+2.539	158 52 43.12	0.78	3	-19.82
22	Lacaille 188	5.4	0 37 4.89	0.79	3	+2.586	156 9 38.99	0.79	3	-19.79
23	β Ceti	2	0 37 15.80	0.76	31	+3.012	108 40 42.67	0.92	1	-19.81
24	Lacaille 191	6	0 37 18.91	0.82	3	+2.579	156 17 58.28	0.82	3	-19.79
25	Lacaille 206	6	0 39 17.66	0.82	3	+2.552	156 18 49.79	0.82	3	-19.76
26	Lacaille 209	7	0 39 28.12	0.83	3	+2.219	164 57 14.88	0.83	3	-19.76
27	Lacaille 211	7	0 39 34.89	0.78	3	+2.373	161 51 31.36	0.78	3	-19.76
28	B.A.C. 221	6	0 41 46.52	0.88	1	+3.100	85 22 3.51	0.88	1	-19.72
29	δ Piscium	4.5	0 42 8				83 6 3.67	0.92	1	-19.72
30	Lacaille 244	6.7	0 46 11.22	0.78	3	+2.257	161 50 19.41	0.78	3	-19.65
31	Lacaille 250	6.5	0 47 36.53	0.79	3	+2.308	160 11 12.03	0.79	3	-19.62
32	*	6.7	0 47 40.55	0.79	3	+2.308	160 11 9.66	0.79	3	-19.62
33	B.A.C. 257	6	0 49 20				98 1 43.71	0.87	1	-19.59
34	Lacaille 258	7	0 49 38.46	0.80	3	+2.424	156 8 30.64	0.80	3	-19.59
35	Lacaille 262	5	0 50 17.49	0.82	3	+2.263	160 12 31.90	0.82	3	-19.57

10.—Dense cluster of faint Stars; centre of condensation observed.

28.—This Star has proper motions in R.A. and N.P.D. of about +0.054 and +1.13 respectively. The places given are uncorrected for these proper motions for the fraction of the Year.

No.	Star's Name.	Magnitude.	Mean R.A. 1874, Jan. 1.	Fraction of Year for Mean.	No. of Obs. of R.A.	Precess. or Ann. Var. in R.A.	Mean N.P.D. 1874, Jan. 1.	Fraction of Year for Mean.	No. of Obs. of N.P.D.	Precess. or Ann. Var. in N.P.D.
			h m s			s	° ' "			"
36	Lacaille 263.....	7	0 50 34.76	0.83	4	+2.299	159 18 38.27	0.83	4	-19.57
37	Lacaille 272.....	6.7	0 52 59.68	0.79	3	+2.342	157 14 29.92	0.82	4	-19.52
38	B.A.C. 274	6.7	0 53 17.98	0.96	1	+3.104	84 11 48.88	0.96	1	-19.52
39	ε Piscium.....	4	0 56 24.27	0.89	7	+3.112	82 47 19.63	0.88	3	-19.45
40	Lacaille 292	7.6	0 56 45.91	0.81	3	+1.975	163 22 32.90	0.81	3	-19.44
41	Lacaille 299.....	7	0 57 17.42	0.84	3	+2.043	162 13 34.38	0.84	3	-19.43
42	Lacaille 298.....	5.6	0 57 53.15	0.82	3	+2.316	156 8 1.98	0.82	3	-19.42
43	73 Piscium	6.7	0 58 20.86	0.88	1	+3.102	85 1 10.69	0.88	1	-19.41
44	Lacaille 314.....	6.7	1 0 59.21	0.82	4	+1.963	162 24 40.27	0.82	4	-19.35
45	Lacaille 315.....	7	1 1 15.63	0.80	6	+2.010	161 36 30.79	0.80	6	-19.34
46	β Andromedæ ...	2.3	1 2 41.04	0.88	1	+3.325				
47	Lacaille 332.....	6	1 6 17.88	0.79	3	+1.775	163 37 42.02	0.79	3	-19.22
48	ζ Piscium	6	1 7 8.83	0.92	1	+3.119	83 5 29.71	0.90	3	-19.20
49	B.A.C. 374	6	1 8 23				91 38 54.45	0.90	1	-19.17
50	Lacaille 345.....	6.7	1 8 40.91	0.82	3	+1.641	164 34 37.74	0.82	3	-19.16
51	Lacaille 349.....	7	1 9 19.25	0.81	3	+1.878	161 32 58.69	0.81	3	-19.15
52	Lacaille 353	6.7	1 10 42.55	0.84	3	+1.988	159 29 21.48	0.84	3	-19.11
53	Lacaille 356.....	5.6	1 11 29.53	0.81	3	+1.973	159 32 44.86	0.81	3	-19.09
54	Lacaille 359.....	6.7	1 12 10.15	0.85	3	+2.043	158 5 49.95	0.85	3	-19.07
55	Lacaille 361.....	5.6	1 12 40.98	0.87	4	+2.088	157 3 46.79	0.87	4	-19.05
56	Lacaille 363.....	7.6	1 13 6.85	0.88	3	+2.136	155 52 33.78	0.88	3	-19.04
57	Lacaille 366.....	6.7	1 13 33.31	0.82	3	+2.039	157 46 30.78	0.82	3	-19.03
58	Lacaille 380.....	7	1 15 13.46	0.90	5	+1.762	161 46 51.00	0.90	4	-18.98
59	Lacaille 383.....	7.6	1 15 45.65	0.80	3	+1.909	159 33 50.61	0.80	3	-18.97
60	Lacaille 393.....	7	1 16 53.66	0.84	5	+1.594	163 24 37.79	0.84	4	-18.94
61	Lacaille 391.....	7.6	1 17 35.69	0.87	3	+2.025	157 2 36.91	0.87	3	-18.92
62	θ Ceti	3	1 17 43.57	0.88	7	+2.996	98 50 3.38	0.92	2	-18.69
63	Lacaille 399.....	7.6	1 18 10.30	0.83	3	+1.818	160 22 42.04	0.83	3	-18.90
64	Lacaille 401.....	7	1 18 53.31	0.86	3	+1.851	159 44 26.88	0.86	3	-18.88
65	Lacaille 417.....	7	1 20 37.55	0.85	3	+1.711	161 19 57.13	0.85	3	-18.83
66	Lacaille 421.....	7	1 20 42.34	0.88	3	+1.566	162 58 53.11	0.88	3	-18.82
67	Lacaille 409.....	6.5	1 20 43.71	0.82	3	+2.083	155 1 30.96	0.82	3	-18.82
68	Lacaille 443.....	7.6	1 24 22.12	0.82	5	+1.560	162 21 32.96	0.82	5	-18.71
69	η Piscium	4.3	1 24 44.59	0.87	10	+3.199	75 18 15.74	0.94	1	-18.70
70	α Eridani.....	1	1 33 1.23	0.92	1	+2.234	147 52 39.30	0.90	5	-18.41

51: This is Brisbane 173; Lacaille's N.P.D. is 1° too small if this is Lacaille 349; there is no Star of the 7 Magnitude in Lacaille's place.
53. A Star of the 8th Magnitude has very nearly the same R.A. and is North about 5'.
55. Double: Companion 8 Magnitude.

No.	Star's Name.	Magnitude.	Mean R.A. 1874, Jan. 1.	Fraction of Year for Mean.	No. of Obs. of R.A.	Process. or Ann. Var. in R.A.	Mean N.P.D. 1874, Jan. 1.	Fraction of Year for Mean.	No. of Obs. of N.P.D.	Process. or Ann. Var. in N.P.D.
			h m s			s	° ' "			"
71	Lacaille 497.....	7	1 34 18.31	0.81	3	+1.801	157 11 50.34	0.81	3	-18.38
72	Lacaille 499.....	6	1 34 41.21	0.83	3	+1.854	156 14 45.46	0.83	3	-18.37
73	♂ Piscium	5.4	1 34 52.52	0.87	4	+3.114	85 9 3.03	0.78	1	-18.32
74	♂ Piscium	4	1 38 44.49	0.92	1	+3.156	81 28 37.83	0.88	1	-18.22
75	Lacaille 546.....	7	1 43 7.71	0.82	4	+1.019	164 11 0.68	0.82	4	-18.05
76	Lacaille 567.....	7	1 47 1.58	0.83	3	+1.100	163 2 12.93	0.83	4	-17.91
77	β Arietis.....	3.2	1 47 40.89	0.90	3	+3.297				
78	Lacaille 581....	7	1 48 26.83	0.85	3	+0.891	164 23 40.12	0.85	3	-17.85
79	Lacaille 577.	5.6	1 49 23.64	0.82	3	+1.509	158 33 55.82	0.82	3	-17.81
80	Lacaille 594.....	5.4	1 51 44.67	0.84	3	+1.501	158 16 4.24	0.84	3	-17.72
81	B.A.C 609	7	1 52 41.29	0.81	1	+3.200	78 19 2.49	0.81	1	-17.68
82	Lacaille 601.....	6.7	1 52 52.62	0.83	3	+1.425	159 0 28.94	0.83	3	-17.67
83	Lacaille 616.....	5.6	1 56 22.95	0.82	3	+1.564	156 40 39.42	0.82	3	-17.52
84	α Arietis	2	2 0 4.39	0.75	9	+3.366	67 8 4.50	0.93	1	-17.21
85	Lacaille 643	6.7	2 0 14.31	0.83	4	+1.126	161 1 33.77	0.83	4	-17.36
86	Lacaille 642.....	7.6	2 1 14.29	0.82	3	+1.576	155 44 35.93	0.82	3	-17.31
87	Lacaille 665.....	6.7	2 3 38.32	0.86	3	+0.933	162 12 33.77	0.86	3	-17.21
88	Lacaille 664.....	6	2 3 50.80	0.85	3	+1.488	156 32 40.21	0.85	3	-17.20
89	Lacaille 676.....	7.6	2 6 43.01	0.83	3	+1.571	154 56 59.73	0.83	3	-17.06
90	Lacaille 691.....	6.7	2 9 44.67	0.85	3	+1.403	156 44 41.53	0.85	3	-16.93
91	Lacaille 698.....	6.7	2 9 50.34	0.86	3	+0.923	161 32 29.56	0.86	3	-16.92
92	67 Ceti.....	6	2 10 41.93	0.80	11	+2.987	97 0 13.96	0.92	2	-16.74
93	Lacaille 701.....	5	2 11 36.62	0.86	3	+1.237	158 25 48.37	0.86	3	-16.84
94	Lacaille 706.....	6.5	2 12 51.17	0.87	3	+1.229	158 19 51.33	0.87	3	-16.78
95	Lacaille 714.....	7.6	2 13 33.59	0.86	3	+1.050	160 1 5.48	0.86	3	-16.74
96	Lacaille 736.....	7.6	2 17 21.80	0.83	3	+1.143	158 39 44.61	0.83	3	-16.56
97	Lacaille 747.....	5.4	2 19 30.80	0.85	3	+1.056	159 13 59.84	0.85	3	-16.46
98	ξ ² Ceti	4	2 21 27.65	0.91	7	+3.181	82 6 24.49	0.94	1	-16.33
99	Lacaille 774.....	6	2 22 7.81	0.89	4	+0.325	164 13 0.30	0.89	4	-16.33
100	Lacaille 769.....	6	2 22 50.58	0.87	3	+1.229	157 3 41.75	0.87	3	-16.28
101	Lacaille 777.....	6.7	2 23 41.27	0.85	3	+0.836	160 40 8.71	0.85	3	-16.24
102	Lacaille 778....	7	2 24 14.37	0.87	3	+1.002	159 12 4.50	0.87	3	-16.21
103	Lacaille 790....	7	2 25 53.61	0.90	3	+0.879	160 5 16.77	0.90	3	-16.13
104	29 Arietis	6.7	2 26 0.15	0.81	1	+3.278	75 31 27.30	0.81	1	-16.12
105	Lacaille 800.....	7	2 27 50.10	0.86	3	+0.960	159 10 9.87	0.86	3	-16.03

No.	Star's Name.	Magnitude.	Mean R.A. 1874, Jan. 1.	Fraction of Year for Mean.	No. of Obs. of R.A.	Precess. or Ann. Var. in R.A.	Mean N.P.D. 1874, Jan. 1.	Fraction of Year for Mean.	No. of Obs. of N.P.D.	Precess. or Ann. Var. in N.P.D.
			h m s			s	° ' "			"
106	Lacaille 807.....	6.7	2 29 0.66	0.88	3	+1.015	158 31 27.04	0.88	3	-15.96
107	ν Ceti	5	2 29 15.69	0.83	1	+3.144	84 57 27.97	0.98	1	-15.96
108	Lacaille 836.....	7	2 32 16.04	0.89	4	+0.377	162 59 49.91	0.89	3	-15.79
109	Lacaille 839.....	6.7	2 32 46.55	0.88	2	+0.386	162 53 57.88	0.88	2	-15.76
110	δ Ceti	4	2 33 1.56	0.83	1	+3.069	90 12 59.31	0.98	1	-15.75
111	Lacaille 856.....	7	2 33 51.98	0.92	3	+0.057	164 34 23.13	0.92	3	-15.70
112	Lacaille 854.....	6.7	2 35 49.24	0.87	3	+1.008	157 50 39.91	0.87	3	-15.60
113	γ ² Ceti	3.4	2 36 46.34	0.64	7	+3.101				
114	Lacaille 867.....	6.7	2 37 22.53	0.90	3	+1.025	157 29 50.22	0.90	3	-15.51
115	Lacaille 866.....	7.6	2 37 28.01	0.88	3	+1.107	156 39 23.39	0.88	3	-15.51
116	Lacaille 877.....	6	2 37 36.29	0.94	3	+0.576	161 13 16.05	0.94	3	-15.50
117	Lacaille 871.....	5	2 37 39.48	0.93	3	+0.883	158 48 26.34	0.93	3	-15.50
118	Lacaille 880.....	7	2 39 0.70	0.95	3	+0.752	159 46 13.63	0.95	3	-15.42
119	Lacaille 882.....	7.6	2 40 25.52	0.95	3	+0.422	161 59 45.63	0.95	3	-15.34
120	Lacaille 904.....	7	2 40 57.70	0.92	3	-0.120	164 51 33.08	0.92	3	-15.31
121	Lacaille 893.....	6	2 41 14.79	0.89	3	+1.010	157 14 41.31	0.89	3	-15.30
122	Lacaille 898.....	6	2 41 49.13	0.93	3	+0.728	159 41 39.57	0.93	3	-15.26
123	Lacaille 901.....	7	2 41 49.63	0.92	3	+0.443	161 44 17.02	0.92	3	-15.26
124	π Arietis	6.5	2 42 15.75	0.89	1	+3.337	73 3 40.11	0.89	1	-15.24
125	Lacaille 907.....	5	2 43 36.53	0.88	3	+0.889	158 8 48.11	0.88	3	-15.16
126	σ Arietis	6	2 44 32.33	0.90	2	+3.300	75 26 17.38	0.90	2	-15.11
127	Lacaille 916.....	6	2 44 40.08	0.59	3	+0.400	161 45 49.05	0.59	3	-15.10
128	ρ ² Arietis	6	2 48 43.83	0.89	1	+3.361	72 10 49.53	0.89	1	-14.86
129	Lacaille 952.....	7	2 48 54.31	0.89	3	-0.139	164 21 44.67	0.89	3	-14.85
130	Lacaille 943.....	6	2 49 3.30	0.86	3	+0.842	158 2 24.40	0.86	3	-14.84
131	Lacaille 948.....	6	2 50 41.73	0.60	3	+1.040	155 58 6.29	0.65	4	-14.74
132	Lacaille 1884 S.P.	7	2 51 12				178 56 19.47	0.57	1	-14.71
133	Lacaille 1146 ...	7	2 51 33				175 32 51.50	0.98	1	-14.69
134	Lacaille 954.....	6.7	2 51 40.93	0.89	3	+1.082	155 24 50.53	0.89	3	-14.69
135	Lacaille 957.....	6	2 51 57.60	0.92	3	+1.123	154 56 46.87	0.92	3	-14.67
136	Lacaille 970.....	6	2 55 34.23	0.61	3	+1.695	146 3 57.33	0.61	3	-14.45
137	α Ceti	2.3	2 55 41.62	0.81	25	+3.129	86 24 21.44	0.84	1	-14.33
138	Lacaille 997.....	7	3 0 51.06	0.90	3	+0.439	160 10 39.42	0.90	3	-14.12
139	ε Persei	4.5	3 1 0.30	0.95	1	+4.002				
140	Lacaille 994.....	7	3 1 48.81	0.59	3	+1.375	150 41 6.98	0.59	3	-14.07

119.—The nearest Star of the 7 magnitude to Lacaille's place.

No.	Star's Name.	Magnitude.	Mean R.A. 1874, Jan. 1.	Fraction of Year for Mean.	No. of Obs. of R.A.	Precess. or Ann. Var in R.A.	Mean N.P.D. 1874, Jan. 1.	Fraction of Year for Mean.	No. of Obs. of N.P.D.	Precess. or Ann. Var. in N.P.D.
			h m s			s	° ' "			"
141	Lacaille 1001	6.5	3 2 0.50	0.93	3	+0.067	162 23 41.08	0.93	3	-14.05
142	δ Arietis	4.5	3 4 25.60	0.66	4	+3.419				
143	Lacaille 1031	7	3 5 17.83	0.89	3	+0.009	162 29 20.94	0.89	3	-13.86
144	Lacaille 1047	6	3 5 51.33	0.94	4	-0.496	164 48 22.63	0.94	3	-13.81
145	Lacaille 1043	7.6	3 5 51.72	0.95	3	-0.298	163 57 22.76	0.95	3	-13.81
146	Lacaille 1022.....	7	3 5 54.51	0.94	3	+0.854	156 24 5.35	0.94	3	-13.81
147	Lacaille 1046.....	6.7	3 6 39.37	0.89	5	-0.012	162 30 25.63	0.89	5	-13.76
148	Lacaille 1025.....	6.7	3 6 42.99	0.94	3	+0.982	155 2 50.00	0.94	3	-13.76
149	Lacaille 1035.....	6	3 6 51.05	0.33	3	+0.436	159 44 42.99	0.33	3	-13.75
150	Lacaille 1054.....	7	3 9 1.26	0.90	3	+0.645	157 58 50.67	0.90	3	-13.60
151	Lacaille 1075.....	6.7	3 11 20.91	0.94	3	-0.570	164 46 44.77	0.94	3	-13.46
152	Lacaille 1066.....	7.8	3 11 57.78	0.91	3	+0.811	156 17 48.67	0.91	3	-13.42
153	Lacaille 1085.....	7	3 12 50.92	0.94	5	-0.519	164 29 12.86	0.95	4	-13.36
154	Lacaille 1069.....	6	3 13 11.00	0.63	3	+0.941	154 54 23.45	0.63	3	-13.34
155	Lacaille 1082.....	6.7	3 14 18.10	0.92	4	+0.282	160 14 47.47	0.92	4	-13.27
156	γ Arietis	5.6	3 15 30.39	0.89	1	+3.445	69 42 36.45	0.89	1	-13.19
157	Lacaille 1092.....	6	3 16 33.63	0.63	3	+0.644	157 23 5.30	0.63	3	-13.12
158	Lacaille 1094.....	7.6	3 16 39.32	0.94	3	+0.489	158 37 5.23	0.94	3	-13.12
159	Lacaille 1109.....	7	3 16 58.52	0.96	3	-0.461	164 0 33.00	0.96	3	-13.10
160	Lacaille 1097.....	7.6	3 17 22.68	0.88	3	+0.758	156 20 28.79	0.88	3	-13.06
161	Lacaille 1098.....	7	3 17 30.41	0.94	4	+0.774	156 10 60.22	0.94	4	-13.06
162	Lacaille 1118.....	7.6	3 20 5.89	0.63	3	+0.404	158 59 9.77	0.63	3	-12.88
163	Lacaille 1126.....	6.7	3 20 6.38	0.69	4	-0.606	164 26 7.08	0.69	4	-12.88
164	Lacaille 1848 S.P.	7	3 20 27.52	0.61	2	-41.115	178 40 8.19	0.61	2	-12.86
165	Lacaille 1132.....	6	3 23 30.82	0.90	3	+0.213	160 4 3.33	0.90	3	-22.65
166	Lacaille 1139	6	3 25 1.92	0.60	3	+0.242	159 46 38.56	0.60	3	-12.55
167	Lacaille 1143.....	5.6	3 27 10.89	0.03	3	+0.978	153 22 56.18	0.03	3	-12.41
168	Lacaille 1164.....	6.5	3 29 34.40	0.90	3	+0.587	156 54 59.61	0.90	3	-12.24
169	Lacaille 1178.....	7.6	3 31 34.59	0.89	3	+0.543	157 9 7.03	0.89	3	-12.10
170	Lacaille 1184.....	7	3 32 1.12	0.92	3	+0.452	157 50 17.11	0.92	3	-12.07
171	Lacaille 1187.....	7.6	3 32 55.59	0.94	3	+0.763	155 7 41.87	0.94	3	-12.00
172	Lacaille 1188.....	6	3 32 59.94	0.93	3	+0.647	156 10 58.80	0.93	3	-12.00
173	Lacaille 1192.....	7.6	3 35 12.06	0.60	3	+1.367	147 41 46.32	0.60	3	-11.85
174	Lacaille 1218.....	7	3 36 18.20	0.92	3	+0.275	158 50 58.06	0.92	3	-11.77
175	δ Eridani	3	3 37 12.72	0.95	3	+2.876	100 11 27.84	0.96	2	-11.71

No.	Star's Name.	Magnitude.	Mean R.A. 1874, Jan. 1.	Fraction of Year for Mean.	No. of Obs. R.A.	Precess. or Ann. Var. in R.A.	Mean N.P.D. 1874, Jan. 1.	Fraction of Year for Mean.	No. of Obs. N.P.D.	Precess. or Ann. Var. in N.P.D.
			h m s			s	° ' "			"
176	17 Tauri	4	3 37 23.66	0.92	1	+3.550				
177	η Tauri	3	3 39 59.81	0.70	4	+3.552	66 17 9.27	0.93	1	-11.44
178	Lacaille 1245 ...	7	3 40 23.02	0.68	4	+0.505	156 52 39.66	0.68	4	-11.48
179	Lacaille 1243 ...	7	3 40 56.03	0.02	3	+0.760	154 35 40.85	0.02	3	-11.43
180	Lacaille 1253 ...	3.4	3 42 37.67	0.62	3	+0.683	155 12 13.52	0.62	3	-11.32
181	Lacaille 1283 ...	6	3 44 48.99	0.90	3	-0.049	160 24 48.65	0.90	3	-11.16
182	Lacaille 1285 ...	6.7	3 45 3.92	0.90	3	-0.052	160 24 39.14	0.90	3	-11.14
183	Lacaille 1295 ...	6.7	3 45 11.55	0.64	3	-0.911	164 24 1.70	0.64	3	-11.13
184	Lacaille 1277 ...	7	3 45 14.50	0.93	3	+0.466	156 53 28.97	0.93	3	-11.12
185	Lacaille 1298 ...	5.6	3 46 4.12	0.03	3	-0.369	162 2 52.23	0.03	3	-11.06
186	Lacaille 1414 S.P.	7	3 46 49.90	0.62	2	-10.039	175 7 41.13	0.62	3	-11.01
187	Lacaille 1301 ...	7	3 47 43.69	0.93	3	-0.051	160 16 19.49	0.93	3	-10.94
188	Lacaille 1322 ...	3.4	3 49 12.73	0.64	3	-1.020	164 37 28.84	0.64	3	-10.83
189	33 Tauri	6	3 49 35.75	0.89	1	+3.546	67 11 31.89	0.89	1	-10.81
190	Lacaille 1308 ...	7	3 49 36.31	0.91	3	+0.454	156 43 20.38	0.91	3	-10.80
191	γ ¹ Eridani	3	3 52 9.02	0.55	11	+2.794	103 52 5.59	0.96	1	-10.49
192	Lacaille 1321 ...	7	3 53 15.46	0.03	3	+0.996	151 16 25.57	0.03	3	-10.53
193	36 Tauri	6	3 56 49.56	0.82	1	+3.578	64 14 33.06	0.82	1	-10.26
194	Lacaille 1352 ...	7	3 57 52.37	0.03	3	+0.456	156 14 13.36	0.03	3	-10.19
195	Lacaille 1362 ...	7	3 58 17.44	0.04	3	+0.116	158 41 56.50	0.04	3	-10.16
196	Lacaille 1347 ...	6.7	3 58 18.43	0.03	3	+1.153	149 0 51.30	0.03	3	-10.16
197	Lacaille 1380 ...	6.7	4 1 28.84	0.90	4	-0.404	161 30 58.10	0.90	4	- 9.92
198	Lacaille 1383 ...	7.6	4 2 33.44	0.93	3	-0.010	159 17 30.47	0.93	3	- 9.83
199	Lacaille 1375 ...	7	4 3 6.08	0.32	3	+1.144	148 49 5.97	0.32	3	- 9.79
200	37 Eridani	5.6	4 4 13.57	0.97	1	+2.924				
201	μ Persei	4.5	4 5 39.25	0.96	1	+4.380				
202	δ ¹ Eridani	4.5	4 5 42.89	0.70	4	+2.923				
203	Lacaille 1405 ...	7	4 6 23.26	0.03	3	-0.196	160 12 24.59	0.03	3	- 9.53
204	Lacaille 1401 ...	7	4 7 12.70	0.70	4	+0.437	155 54 28.78	0.62	3	- 9.47
205	Lacaille 1421 ...	7.8	4 9 39.20	0.02	3	-0.568	161 58 13.54	0.02	3	- 9.29
206	γ Tauri	4	4 12 37.42	0.94	2	+3.399	74 40 42.68	0.95	1	- 9.06
207	Lacaille 1442 ...	7.6	4 13 53.71	0.04	3	-0.351	160 44 13.54	0.04	3	- 8.96
208	Lacaille 1453 ...	7	4 14 50.28	0.05	3	-0.882	163 8 6.04	0.05	3	- 8.88
209	χ ¹ Tauri	6.5	4 14 54.96	0.82	1	+3.640	64 40 11.92	0.82	1	- 8.87
210	Lacaille 1432 ...	7	4 15 19.58	0.02	3	+1.260	146 29 33.43	0.02	3	- 8.85

No.	Star's Name.	Magnitude.	Mean R.A. 1874, Jan. 1.	Fraction of Year for Mean.	No. of Obs. of R.A.	Precess or Ann. Var. in R.A.	Mean N.P.D. 1874, Jan. 1.	Fraction of Year for Mean.	No. of Obs. of N.P.D.	Precess. or Ann. Var. in N.P.D.
			h m s			s	° ' "			"
211	Lacaille 1445.....	7	4 15 47.68	0.61	3	+0.346	156 13 7.73	0.61	3	- 8.81
212	Lacaille 1443	6	4 16 16.07	0.04	3	+0.654	153 33 41.64	0.04	3	- 8.77
213	Lacaille 1460	7	4 17 11.92	0.91	4	-0.243	160 1 58.87	0.91	4	- 8.69
214	Lacaille 1481	7	4 18 13.36	0.63	3	-0.712	162 18 10.21	0.63	3	- 8.61
215	Lacaille 1487.....	7	4 20 2.64	0.63	3	-0.156	159 25 2.83	0.63	3	- 8.47
216	Lacaille 1486.....	7	4 20 7.51	0.90	3	-0.084	158 59 50.51	0.90	3	- 8.46
217	Lacaille 1482.....	7	4 20 15.35	0.07	3	+0.279	156 32 11.18	0.07	3	- 8.45
218	ε Tauri.....	4.3	4 21 15.64	0.21	6	+3.493	71 6 3.21	0.95	1	- 8.34
219	Lacaille 1496.....	5.6	4 23 20.58	0.03	3	+0.824	151 31 26.14	0.03	3	- 8.21
220	Lacaille 1511.....	6.7	4 23 28.40	0.05	3	+0.194	157 1 32.14	0.05	3	- 8.20
221	Lacaille 1524.....	7	4 24 49.26	0.06	3	-0.161	159 16 39.06	0.06	3	- 8.09
222	Lacaille 1532.....	7	4 26 22.62	0.04	3	-0.350	160 16 25.70	0.04	3	- 7.96
223	α Tauri	1	4 28 41.50	0.64	15	+3.436	73 44 46.32	0.92	1	- 7.61
224	Lacaille 1552.....	7	4 28 50.65	0.08	3	-0.936	162 54 30.34	0.08	3	- 7.77
225	Lacaille 1548.....	7	4 29 38.74	0.07	3	-0.298	159 52 58.56	0.07	3	- 7.70
226	Lacaille 1545.....	7.6	4 30 4.95	0.06	3	-0.011	158 9 38.51	0.06	3	- 7.66
227	Lacaille 1608.....	7.6	4 36 32.88	0.04	3	-1.136	163 27 50.80	0.04	3	- 7.14
228	Lacaille 1606.....	7.6	4 36 36.40	0.04	3	-1.012	162 59 18.17	0.04	3	- 7.14
229	Lacaille 1839 S.P.	7	4 36 38			-17.623	176 32 41.39	0.61	1	- 7.13
230	Lacaille 1607.....	7	4 38 35.94	0.06	3	-0.203	159 3 23.70	0.06	3	- 6.97
231	μ Eridani.....	4.3	4 39 12.13	0.64	3	+2.996				
232	Lacaille 1614.....	6.5	4 42 27.20	0.03	3	+0.891	149 57 51.85	0.03	3	- 6.66
233	Lacaille 1654.....	5.6	4 44 20.02	0.03	3	-0.635	161 9 42.22	0.03	3	- 6.50
234	Lacaille 1647.....	7	4 45 33.30	0.05	3	+0.185	156 18 12.84	0.05	3	- 6.40
235	Lacaille 1660.....	7.6	4 46 59.93	0.06	3	-0.196	158 46 4.66	0.06	3	- 6.28
236	Lacaille 1672.....	7	4 48 25.97	0.10	3	-0.239	158 58 57.20	0.10	3	- 6.16
237	B.A.C. 1518.....	6	4 48 35.28	0.89	1	+3.647	65 36 39.65	0.89	1	- 6.15
238	ε Aurigæ.....	3	4 48 47.31	0.09	1	+3.895				
239	Lacaille 1661.....	7.6	4 49 57.71	0.04	2	+1.189	145 54 16.88	0.04	2	- 6.01
240	κ Tauri.....	6.5	4 50 26.89	0.89	1	+3.663	65 8 46.61	0.89	1	- 5.99
241	Lacaille 1687.....	6.7	4 51 36.82	0.07	3	-0.135	158 16 43.06	0.07	3	- 5.90
242	Lacaille 1692.....	7.6	4 51 37.59	0.04	3	-0.447	160 2 21.63	0.04	3	- 5.90
243	Lacaille 1679.....	6	4 52 49.31	0.03	3	+0.963	148 44 60.23	0.03	3	- 5.80
244	Lacaille 1701.....	6	4 53 19.11	0.08	3	+0.073	156 52 36.73	0.08	3	- 5.75
245	Lacaille { 1721 1723 }	6	4 55 12.57	0.06	3	-1.028	162 36 58.22	0.06	3	- 5.59

No.	Star's Name.	Magnitude.	Mean R.A. 1874, Jan. 1.	Fraction of Year for Mean.	No. of Obs. of R.A.	Precess. or Ann. Var. in R.A.	Mean N.P.D. 1874, Jan. 1.	Fraction of Year for Mean.	No. of Obs. of N.P.D.	Precess. or Ann. Var. in N.P.D.
			h m s			s	° ' "			"
246	Lacaille 1726 ...	7.6	4 55 44.86	0.07	3	-1.120	162 57 43.54	0.07	3	-5.55
247	Lacaille 1714 ...	7.6	4 56 28.42	0.08	3	+0.288	155 12 31.47	0.08	3	-5.49
248	Lacaille 1733 ...	7.6	4 58 15.22	0.11	3	-0.694	161 6 50.93	0.11	3	-5.33
249	Lacaille 1725 ...	7	4 59 53.95	0.02	3	+1.164	146 17 4.06	0.02	3	-5.20
250	ε Leporis	4.3	5 0 7.58	0.39	7	+2.536	112 32 31.31	0.97	1	-5.11
251	Lacaille 1740 ...	7	5 0 21.95	0.08	3	-0.252	158 45 51.30	0.08	3	-5.16
252	Lacaille 1758 ...	7	5 1 58.17	0.10	3	-0.645	160 48 10.89	0.10	3	-5.02
253	Lacaille 1755 ...	7	5 2 25.88	0.05	3	-0.423	159 40 16.86	0.05	3	-4.98
254	Lacaille 1778 ...	5.6	5 4 21.17	0.05	3	-0.803	161 29 9.78	0.05	3	-4.82
255	Lacaille 1788 ...	6.7	5 4 27.64	0.07	3	-1.613	164 30 54.44	0.07	3	-4.81
256	Lacaille 1777 ...	7	5 5 27.66	0.08	3	-0.185	158 15 9.62	0.08	2	-4.73
257	Lacaille 1776 ...	7	5 6 10.69	0.10	3	+0.214	155 32 26.17	0.10	3	-4.67
258	α Aurigæ.....	1	5 7 23.01	0.95	1	+4.422				
259	β Orionis.....	1	5 8 28.94	0.37	17	+2.880				
260	Lacaille 1808 ...	6.7	5 8 42.07	0.05	3	-1.246	163 11 58.86	0.05	3	-4.45
261	Lacaille 1804 ...	7	5 8 46.03	0.10	3	-0.808	161 25 34.30	0.10	3	-4.44
262	Lacaille 1807 ...	6.7	5 11 32.26	0.05	3	+0.227	155 19 28.16	0.05	3	-4.21
263	Lac. 1831 Prec. *	8	5 12 16.56	0.07	1	-1.008	162 13 29.38	0.07	1	-4.14
264	Lac. 1831 (Mean)	7	5 12 17.27	0.06	2	-1.008	162 13 29.45	0.06	2	-4.14
265	Lacaille 1818 ...	7	5 12 56.70	0.07	3	+0.216	155 22 44.69	0.07	3	-4.09
266	B.A.C. 1648 ...	6.7	5 13 4.77	0.97	1	+3.762	62 10 24.20	0.97	1	-4.08
267	Lacaille 1828 ...	5	5 13 51.41	0.03	3	-0.063	157 19 38.27	0.03	3	-4.01
268	Lacaille 1861 ...	7	5 18 12.82	0.01	3	-0.304	158 43 16.93	0.01	3	-3.63
269	β Tauri	2	5 18 19.66	0.20	13	+3.789				
270	Lacaille 1878 ...	7.6	5 18 22.37	0.04	4	-1.431	163 43 12.37	0.04	3	-3.61
271	Lacaille 1851 ...	6	5 18 58.24	0.04	3	+0.708	150 54 13.14	0.04	3	-3.57
272	Lacaille 1880 ...	7	5 19 16.33	0.10	3	-0.897	161 39 26.78	0.10	3	-3.54
273	Lacaille 1869 ...	7.6	5 19 48.24	0.08	4	+0.089	156 10 54.98	0.08	4	-3.50
274	Lacaille 1900 ...	7	5 21 57.33	0.10	3	-1.788	164 49 14.12	0.10	3	-3.31
275	Lacaille 1903 ...	7	5 24 17.06	0.08	4	-0.904	161 37 15.02	0.08	3	-3.11
276	Lacaille 1910 ...	7	5 25 1.88	0.07	3	-1.107	162 27 3.98	0.07	3	-3.05
277	δ Orionis	2.3	5 25 34.18	0.21	22	+3.064				
278	Lacaille 1925 ...	6	5 25 40.27	0.04	3	-1.512	163 54 41.72	0.04	3	-2.99
279	α Leporis.....	3	5 27 10.37	0.34	6	+2.646				
280	Lacaille 1920 ...	6	5 27 39.88	0.09	3	-0.327	158 43 19.49	0.09	3	-2.83

No.	Star's Name.	Magnitude.	Mean R.A. 1874, Jan. 1.	Fraction of Year for Mean.	No. of Obs. of R.A.	Proces. or Ann. Var. in R.A.	Mean N.P.D. 1874, Jan. 1.	Fraction of Year for Mean.	No. of Obs. for N.P.D.	Proces. or Ann. Var. in N.P.D.
			h m s			s	° ' "			"
281	Lacaille 1950 ...	7.6	5 27 57.16	0.12	3	-1.780	164 44 12.59	0.12	3	-2.80
282	B.A.C. 1746	6.7	5 28 1.20	0.97	1	+3.762	62 25 20.03	0.97	1	-2.79
283	Lacaille 1917 ...	7	5 28 22.68	0.09	3	+0.160	155 32 58.75	0.09	3	-2.76
284	Lacaille 1931 ...	7	5 29 21.53	0.10	3	+0.020	156 31 58.76	0.10	3	-2.67
285	Lacaille 1922 ...	6.7	5 29 30.50	0.06	3	+0.353	154 1 18.97	0.06	3	-2.66
286	Lacaille 1963 ...	7	5 29 41.02	0.13	3	-1.480	163 45 54.93	0.13	3	-2.65
287	♄ Orionis	2	5 29 49.21	0.37	15	+3.041	91 17 4.72	0.96	1	-2.62
288	Lacaille 1932 ...	6.7	5 31 25.82	0.03	3	+1.016	147 10 7.77	0.03	3	-2.49
289	Lacaille 1958 ...	7	5 33 40.09	0.04	3	+0.679	150 58 15.03	0.04	3	-2.30
290	α Columbe	2	5 35 5.15	0.26	12	+2.179				
291	Lacaille 1971 ...	7	5 36 29.79	0.03	3	+0.843	149 11 10.80	0.03	3	-2.06
292	Lacaille 1985 ...	6	5 36 55.00	0.04	3	-0.007	156 37 52.66	0.04	3	-2.02
293	Lacaille 2016 ...	5.6	5 37 53.52	0.06	3	-1.513	163 48 54.77	0.06	3	-1.93
294	Lacaille 2007 ...	8	5 39 35.15	0.08	3	-0.427	159 9 53.12	0.08	3	-1.79
295	Lacaille 2039 ...	6.7	5 40 5.41	0.04	3	-1.501	163 45 41.07	0.04	3	-1.74
296	♄ Orionis	3.2	5 41 46.86	0.12	2	+2.844				
297	Lacaille 2032 ...	7.6	5 41 59.31	0.02	3	-0.139	157 27 31.17	0.02	3	-1.58
298	Lacaille 2037 ...	7	5 42 0.37	0.09	3	-0.369	158 49 36.78	0.09	3	-1.58
299	Lacaille 2038 ...	7	5 42 52.81	0.04	3	-0.098	157 11 25.38	0.04	3	-1.50
300	Lacaille 2049 ...	7.6	5 44 8.33	0.29	3	-0.251	158 7 55.05	0.29	3	-1.39
301	Lacaille 2045 ...	5.4	5 44 32.91	0.10	4	+0.106	155 46 58.71	0.10	4	-1.35
302	Lacaille 2071 ...	7	5 46 29.66	0.07	3	-0.190	157 45 5.97	0.07	3	-1.19
303	Lacaille 2055 ...	6.7	5 47 45.84	0.04	2	+1.157	145 7 4.37	0.04	2	-1.07
304	*	6.7	5 47 50.14	0.02	1	+1.158	145 5 22.01	0.02	1	-1.06
305	Lacaille 2079 ...	7	5 48 11.53	0.07	3	+0.182	155 12 11.92	0.07	3	-1.03
306	α Orionis	1	5 48 21.05	0.14	11	+3.246				
307	Lacaille 2093 ...	5.6	5 50 1.63	0.12	3	-0.064	156 55 57.99	0.12	3	-0.87
308	Lacaille 2089 ...	7	5 50 17.18	0.13	3	+0.169	155 17 25.43	0.13	3	-0.85
309	Lacaille 2111 ...	6.7	5 50 21.92	0.15	4	-1.226	162 44 12.62	0.15	3	-0.84
310	Lacaille 2091 ...	6	5 50 41.86	0.07	3	+0.326	154 3 42.36	0.07	3	-0.81
311	Lacaille 2116 ...	7	5 52 13.86	0.12	3	-0.584	159 55 35.47	0.12	3	-0.68
312	Lacaille 2134 ...	7	5 56 8.91	0.11	3	-0.246	158 3 44.40	0.11	3	-0.34
313	Lacaille 2157 ...	7	5 58 16.07	0.12	3	-0.501	159 29 15.26	0.12	3	-0.15
314	♄ Orionis	5.4	6 0 22.67	0.14	6	+3.426				
315	Lacaille 2193 ...	7.6	6 3 23.80	0.12	3	-0.124	157 18 1.21	0.12	3	+0.30

294. The Nebula of 30 Doradus; a Star of the 8 magnitude observed.

No.	Star's Name.	Magnitude.	Mean R.A. 1874, Jan. 1.	Fraction of Year for Mean.	No. of Obs. of R.A.	Precess. or Ann. Var. in R.A.	Mean N.P.D. 1874, Jan. 1.	Fraction of Year for Mean.	No. of Obs. of N.P.D.	Precess. or Ann. Var. in N.P.D.
			h m s			s	° ' "			"
316	Lacaille 2203 ...	6.5	6 6 0.55	0.11	3	+0.067	156 1 19.98	0.11	3	+ 0.52
317	Lacaille 2212 ...	6	6 7 5.41	0.11	3	-0.116	157 15 44.96	0.11	3	+ 0.62
318	Lacaille 2227 ...	5.6	6 9 32.86	0.12	3	-0.375	158 48 58.91	0.12	3	+ 0.84
319	Lacaille 2230 ...	5.6	6 10 58.55	0.12	3	+0.134	155 33 35.55	0.12	3	+ 0.96
320	Lacaille 2248 ...	7	6 12 29.99	0.13	3	-0.542	159 43 34.30	0.13	3	+ 1.09
321	Lacaille 2272 ...	7	6 13 26.34	0.15	3	-1.287	162 58 38.89	0.15	3	+ 1.18
322	Lacaille 2249 ...	7	6 13 43.52	0.12	3	-0.018	156 38 25.80	0.12	3	+ 1.20
323	Lacaille 2283 ...	6	6 13 59.39	0.16	3	-1.809	164 42 31.66	0.16	3	+ 1.22
324	μ Geminorum ...	3	6 15 20.21	0.10	23	+3.632				
325	Lacaille 2266 ...	6.7	6 15 34.44	0.13	3	+0.042	156 14 42.63	0.13	3	+ 1.36
326	Lacaille 2294 ...	7	6 16 53.75	0.14	3	-0.938	161 36 28.56	0.14	3	+ 1.48
327	Lacaille 2298 ...	6.7	6 17 6.76	0.11	3	-0.949	161 39 21.01	0.11	3	+ 1.50
328	*	7.8	6 17 32.98	0.16	1	-0.419	159 6 11	0.16	1	+ 1.53
329	Lacaille 2308 ...	6.7	6 17 45.42	0.13	3	-1.450	163 34 39.83	0.13	3	+ 1.56
330	Lacaille 2305 ...	7	6 19 13.66	0.14	3	-0.417	159 6 11.69	0.14	3	+ 1.68
331	*	7	6 20 8.48	0.16	1	+0.010	156 29 31.32	0.16	1	+ 1.76
332	Lacaille 2314 ...	6.7	6 20 23.46	0.12	3	-0.533	159 43 35.77	0.12	3	+ 1.78
333	Lacaille 2322 ...	7	6 20 26.46	0.14	3	-1.044	162 4 26.53	0.14	3	+ 1.79
334	B.A.C. 2097 ...	6.7	6 22 24.98	0.97	1	+3.788	61 42 22.42	0.97	1	+ 1.96
335	Lacaille 2340 ...	6.5	6 23 49.51	0.11	3	-0.564	159 54 52.34	0.11	3	+ 2.08
336	Lacaille 2358 ...	7	6 24 44.43	0.12	3	-0.760	160 52 21.00	0.12	3	+ 2.17
337	Lacaille 2357 ...	7	6 25 18.53	0.13	3	-0.601	160 6 43.71	0.13	3	+ 2.21
338	Lacaille 2368 ...	6.5	6 26 33.10	0.10	3	-0.502	159 37 4.09	0.10	3	+ 2.32
339	*	7.8	6 26 41.26	0.13	1	-0.767	160 55 13.31	0.13	1	+ 2.33
340	49 Aurigæ	6	6 27 16.04	0.97	1	+3.781	61 52 53.11	0.97	1	+ 2.38
341	Lacaille 2381 ...	6.7	6 29 42.60	0.11	3	+0.166	155 28 46.03	0.11	3	+ 2.59
342	γ Geminorum ...	2.3	6 30 25.93	0.13	5	+3.466				
343	Lacaille 2419 ...	7	6 32 36.20	0.06	3	-0.648	160 25 11.06	0.06	3	+ 2.84
344	Lacaille 2457 ...	7	6 36 4.27	0.06	3	-1.427	163 38 46.52	0.06	3	+ 3.15
345	Lacaille 2451 ...	6.7	6 38 12.01	0.08	3	+0.115	155 58 13.40	0.08	3	+ 3.33
346	Lacaille 2472 ...	7.6	6 39 1.66	0.09	3	-0.645	160 29 8.19	0.09	3	+ 3.40
347	Lacaille 2551 S.P.	8.7	6 39 7.25	0.71	2	-4.746	170 26 11.44	0.71	2	+ 3.41
348	α Canis Majoris	1	6 39 35.51	0.10	15	+2.646				
349	* S.P.	7	6 39 47.82	0.70	3	-4.786	170 29 16.56	0.70	3	+ 3.47
350	Lacaille 2504 ...	7	6 42 25.88	0.10	3	-0.644	160 31 37.07	0.10	3	+ 3.70

331. There is no Star above the 8 magnitude nearer the place of Lacaille 2275. It is probable that this is the Star observed by Lacaille, and that there is some error of observation or reduction in Lacaille's catalogue.

No.	Star's Name.	Magnitude.	Mean R.A. 1874, Jan. 1.	Fraction of Year for Mean.	No. of Obs. of R.A.	Precess. or Ann. Var. in R.A.	Mean N.P.D. 1874, Jan. 1.	Fraction of Year for Mean.	No. of Obs. of N.P.D.	Precess. or Ann. Var. in N.P.D.
			h m s			"	° ' "			"
351	Lacaille 2495 ...	7	6 42 44.00	0.10	3	-0.133	157 42 53.35	0.10	3	+ 3.72
352	Lacaille 2515 ...	6.7	6 42 50.79	0.05	3	-0.887	161 38 45.67	0.05	3	+ 3.73
353	Lacaille 2508 ...	7	6 43 4.33	0.09	3	-0.455	159 34 39.06	0.09	3	+ 3.75
354	Lacaille 2547 ...	6	6 46 10.96	0.06	3	-1.206	162 58 42.30	0.06	3	+ 4.02
355	Lacaille 2536 ...	6.7	6 46 11.45	0.09	3	-0.585	160 17 44.01	0.09	3	+ 4.02
356	Lacaille 2525 ...	3.4	6 46 53.75	0.03	3	+0.631	151 48 22.52	0.03	3	+ 4.08
357	θ Canis Majoris	4.5	6 48 20.16	0.11	1	+2.797				
358	Lacaille 2556 ...	7	6 49 48.53	0.06	3	+0.121	156 8 34.84	0.06	3	+ 4.32
359	Lacaille 2586 ...	6.7	6 51 27.22	0.09	3	-0.476	159 49 53.31	0.09	3	+ 4.47
360	Lacaille 2596 ...	7	6 51 36.35	0.10	3	-1.230	163 9 6.74	0.10	3	+ 4.48
361	Lacaille 2597 ...	6	6 52 53.18	0.10	3	-0.666	160 48 22.20	0.10	3	+ 4.59
362	ε Canis Majoris	2.1	6 53 40.36	0.27	15	+2.357				
363	Lacaille 2604 ...	7.6	6 53 50.73	0.07	4	-0.569	160 21 0.92	0.07	3	+ 4.67
364	Lacaille 2587 ...	7	6 54 59.75	0.06	3	+1.183	145 29 51.57	0.06	3	+ 4.77
365	Lacaille 2614 ...	7.6	6 56 6.98	0.08	3	-0.193	158 20 16.54	0.08	3	+ 4.86
366	Lacaille 2627 ...	7.6	6 56 27.82	0.12	3	-0.553	160 19 14.26	0.12	3	+ 4.89
367	Lacaille 2644 ...	7	6 56 46.70	0.12	3	-1.622	164 33 53.08	0.12	3	+ 4.92
368	γ Canis Majoris	4.5	6 58 3.44	0.20	9	+2.717				
369	Lacaille 2646 ...	6.5	7 0 3.24	0.05	3	-0.083	157 44 35.75	0.05	3	+ 5.20
370	Lacaille 2645 ...	7	7 0 38.90	0.08	3	+0.238	155 31 28.95	0.08	3	+ 5.25
371	Lacaille 2664 ...	7	7 3 2.71	0.05	3	+0.085	156 42 4.32	0.05	3	+ 5.45
372	δ Canis Majoris	2	7 3 16.24	0.98	1	+2.439	116 11 40.35	0.98	1	+ 5.46
373	Lacaille 2686 ...	7	7 4 18.99	0.09	3	-0.525	160 20 55.46	0.09	3	+ 5.56
374	Lacaille 2653 ...	6.7	7 5 13.64	0.97	1	+1.783	135 7 44.17	0.97	1	+ 5.63
375	Lacaille 2694 ...	7.6	7 6 38.54	0.08	3	+0.082	156 48 51.43	0.08	3	+ 5.75
376	Lacaille 2704 ...	6.7	7 6 41.76	0.12	3	-0.202	158 38 13.85	0.12	3	+ 5.76
377	Lacaille 2723 ...	7	7 7 3.66	0.11	3	-0.663	161 4 53.45	0.11	3	+ 5.79
378	Lacaille 2716 ...	7	7 7 55.26	0.13	3	-0.050	157 43 56.87	0.13	3	+ 5.86
379	Lacaille 2746 ...	5	7 9 48.45	0.06	3	-0.488	160 17 37.87	0.06	3	+ 6.02
380	Lacaille 2743 ...	7.6	7 10 47.57	0.13	3	+0.093	156 51 16.45	0.13	3	+ 6.10
381	Lacaille 2751 ...	6.7	7 11 6.71	0.08	3	-0.039	157 44 51.44	0.08	3	+ 6.13
382	Lacaille 2765 ...	6.7	7 12 10.65	0.12	3	-0.402	159 54 23.58	0.12	3	+ 6.22
383	Lacaille 2760 ...	7	7 12 15.80	0.11	3	-0.005	157 33 28.71	0.11	3	+ 6.21
384	Lacaille 2775 ...	7	7 12 22.93	0.14	3	-0.868	162 7 40.27	0.14	3	+ 6.23
385	δ Geminorum ...	3.4	7 12 35.85	0.14	3	+3.591				

379. A Star of the 7 magnitude precedes 1°.8, and is true north.

No.	Star's Name.	Magnitude.	Mean R.A. 1874, Jan. 1.	Fraction of Year for Mean.	No. of Obs. of R.A.	Precess. or Ann. Var. in R.A.	Mean N.P.D. 1874, Jan. 1.	Fraction of Year for Mean.	No. of Obs. of N.P.D.	Precess. or Ann. Var. in N.P.D.
			h m s			s	° ' "			"
386	Lacaille 2795 ...	7	7 13 24.99	0.10	3	-0.961	162 32 16.64	0.10	3	+ 6.32
387	Lacaille 2809 ...	4.5	7 16 53.12	0.05	3	-0.010	157 43 36.40	0.05	3	+ 6.60
388	Lacaille 2825 ...	8.7	7 17 43.21	0.07	3	-0.929	162 30 42.81	0.07	3	+ 6.68
389	Lacaille 2828 ...	7	7 18 29.51	0.08	3	-0.696	161 31 9.37	0.08	3	+ 6.73
390	Lacaille 2838 ...	6.7	7 20 19.53	0.10	3	-0.372	159 58 3.15	0.10	3	+ 6.88
391	Lacaille 2853 ...	7	7 22 17.15	0.12	3	-0.623	161 17 15.98	0.12	3	+ 7.05
392	Lacaille 2862 ...	6.7	7 24 5.43	0.08	3	-0.430	160 23 13.58	0.08	3	+ 7.20
393	Lacaille 2885 ...	6	7 25 54.20	0.13	3	-0.586	161 13 1.66	0.13	3	+ 7.35
394	Lacaille 2875 ...	7	7 25 59.04	0.13	3	-0.373	160 8 55.65	0.13	3	+ 7.35
395	α ² Geminorum...	2	7 26 33.48	0.08	2	+3.841				
396	Lacaille 2887 ...	7	7 27 11.31	0.10	3	-0.216	159 19 3.91	0.10	3	+ 7.45
397	Lacaille 2886 ...	7.6	7 27 15.80	0.07	3	-0.056	158 21 29.90	0.07	3	+ 7.45
398	Lacaille 2927 ...	6.7	7 29 45.96	0.06	1	-1.647	165 19 39.70	0.06	1	+ 7.66
399	α Canis Minoris	1	7 32 42.28	0.26	17	+3.144	84 27 12.89	0.97	1	+ 8.98
400	Lacaille 2935 ...	6.7	7 33 29.86	0.08	3	-0.042	158 29 24.46	0.08	3	+ 7.95
401	Lacaille 2961 ...	7.6	7 34 2.34	0.10	4	-1.207	164 0 55.08	0.10	4	+ 8.00
402	Lacaille 2967 ...	7	7 34 5.79	0.12	2	-1.322	164 24 56.34	0.12	2	+ 8.01
403	Lacaille 2953 ...	7.6	7 35 56.64	0.10	3	+0.182	157 5 35.16	0.10	3	+ 8.15
404	Lacaille 2968 ...	7	7 36 24.48	0.13	3	-0.324	160 14 16.56	0.13	3	+ 8.19
405	Lacaille 2966 ...	7	7 36 30.74	0.15	3	-0.069	158 46 14.40	0.15	3	+ 8.20
406	Lacaille 2955 ...	7	7 36 50.56	0.17	3	+0.381	155 37 44.46	0.17	3	+ 8.22
407	β Geminorum...	1.2	7 37 36.28	0.10	1	+3.680				
408	Lacaille 2977 ...	7	7 37 52.79	0.17	3	+0.184	157 9 19.62	0.17	3	+ 8.31
409	Lacaille 3010 ...	6	7 37 55.27	0.25	4	-1.167	163 59 19.10	0.09	3	+ 8.31
410	Lacaille 3018 ...	7	7 40 55.21	0.07	3	-0.171	159 32 58.74	0.07	3	+ 8.55
411	Lacaille 3038 ...	7.6	7 41 58.12	0.08	3	-0.544	161 32 46.11	0.08	3	+ 8.63
412	Lacaille 3056 ...	5.4	7 43 21.23	0.14	3	-0.698	162 18 11.03	0.14	3	+ 8.74
413	*	8	7 43 24.5	0.14	2	-0.698	162 18 21.76	0.14	2	+ 8.74
414	Lacaille 3037 ...	7	7 43 31.29	0.13	3	+0.253	156 53 46.88	0.13	3	+ 8.76
415	Lacaille 3055 ...	7	7 43 46.36	0.17	3	-0.187	159 45 15.24	0.17	3	+ 8.78
416	Lacaille 3058 ...	6.7	7 43 55.28	0.11	3	-0.465	161 14 13.20	0.11	3	+ 8.79
417	Lacaille 3054 ...	6	7 43 55.37	0.19	3	+0.402	155 45 55.35	0.19	3	+ 8.79
418	Lacaille 3057 ...	7.6	7 44 35.11	0.14	3	-0.139	159 30 48.86	0.14	3	+ 8.84
419	Lacaille 3062 ...	7	7 45 35.83	0.08	3	+0.235	157 7 12.08	0.08	3	+ 8.92
420	Lacaille 3085 ...	7.6	7 47 22.21	0.27	3	-0.474	161 24.25.32	0.12	3	+ 9.06
	Lacaille 3085 S.P.				1		24.58	0.74	1	

413. R.A. Estimations to the nearest second.

No.	Star's Name.	Magnitude.	Mean R.A. 1874, Jan. 1.	Fraction of Year for Mean.	No. of Obs. of R.A.	Proces. or Ann. Var. in R.A.	Mean N.P.D. 1874, Jan. 1.	Fraction of Year for Mean.	No. of Obs. of N.P.D.	Proces. or Ann. Var. in N.P.D.
			h m s			s	° ' "			"
421	Lacaille 3083 ...	6	7 48 50.56	0.11	3	+0.417	155 52 26.46	0.11	3	+9.17
422	Lacaille 3111 ...	7	7 51 24.33	0.08	3	-0.256	160 27 10.56	0.08	3	+9.37
423	6 Cancri	5.6	7 55 46.60	0.20	27	+3.693	61 51 14.88	0.97	1	+9.78
424	Lacaille 3142 ...	6	7 56 39.99	0.08	3	+0.503	155 33 57.39	0.09	2	+9.77
425	Lacaille 3188 ...	6	8 0 47.78	0.26	3	-0.681	162 53 33.36	0.09	3	+10.09
	Lacaille 3188 S.P.				1		33.12	0.74	1	
426	Lacaille 3174 ...	6.7	8 1 30.66	0.11	3	+0.522	155 39 37.21	0.11	3	+10.14
427	Lacaille 3182 ...	7	8 1 40.97	0.29	3	-0.040	159 40 21.66	0.15	3	+10.16
	Lacaille 3182 S.P.				1		19.44	0.72	1	
428	*	7.8	8 2 0.47	0.25	4	-0.038	159 40 20.01	0.25	4	+10.18
429	15 Argus	3	8 2 10.65	0.13	5	+2.554	113 56 30.59	0.96	1	+10.13
430	Lacaille 3203 ...	6.7	8 3 27.02	0.13	3	-0.015	159 36 44.41	0.13	3	+10.29
	Lacaille 3203 S.P.						41.61	0.71	1	
431	Lacaille 3202 ...	7	8 3 37.88	0.32	3	+0.149	158 34 35.84	0.19	3	+10.30
	Lacaille 3202 S.P.				1		34.47	0.70	1	
432	Lacaille 3194 ...	7	8 3 45.02	0.22	3	+0.391	156 50 51.64	0.22	3	+10.31
433	Lacaille 3215 ...	7	8 4 4.32	0.25	3	-0.072	159 58 37.03	0.25	3	+10.34
434	*	7.8	8 6 11.32	0.16	1	+0.216	158 14 50	0.16	1	+10.50
435	Lacaille 3225 ...	6.7	8 6 23.37	0.39	3	+0.561	155 36 27.71	0.19	3	+10.51
	Lacaille 3225 S.P.				2		27.82	0.69	2	
436	*	7	8 7 25.69	0.28	3	+0.185	158 31 45.48	0.28	3	+10.58
437	Lacaille 3242 ...	5	8 7 30.81	0.28	3	+0.227	158 14 50.13	0.14	3	+10.59
	Lacaille 3242 S.P.				1		48.03	0.69	1	
438	Lacaille 3254 ...	7	8 8 37.16	0.19	3	+0.182	158 37 6.57	0.19	3	+10.68
439	Lacaille 3268 ...	6.7	8 9 35.68	0.25	3	-0.271	161 20 49.63	0.08	3	+10.75
	Lacaille 3268 S.P.				1					
440	β Cancri	4.3	8 9 40.93	0.08	1	+3.263				
441	A Octantis	7	8 11 14.98	0.34	1	-39.837	178 30 0.72	0.23	22	+10.87
	A Octantis S.P.				7		30 0.34	0.77	10	
442	δ Cancri	6	8 16 8.89	0.08	1	+3.448				
443	Lacaille 3329 ...	6.7	8 16 11.77	0.08	3	-0.647	163 25 4.53	0.08	3	+11.23
444	Lacaille 3313 ...	5	8 16 54.75	0.96	3	+0.678	155 13 3.53	0.96	3	+11.28
445	*	7.8	8 18 59.63	0.28	4	+0.269	158 35 59.81	0.28	3	+11.43
446	Lacaille 3346 ...	7.6	8 19 48.80	0.16	3	+0.268	158 39 29.99	0.16	3	+11.49
447	Lacaille 3355 ...	6	8 20 10.04	0.33	3	-0.128	161 6 48.62	0.19	3	+11.51
	Lacaille 3355 S.P.				1		49.45	0.72	1	
448	Lacaille 3357 ...	6	8 20 21.18	0.19	3	-0.124	161 6 13.86	0.19	3	+11.53
449	Lacaille 3379 ...	7.6	8 20 46.07	0.23	3	-0.898	164 36 46.28	0.23	3	+11.56
450	Lacaille 3351 ...	7	8 20 54.47	0.24	3	+0.508	156 55 49.79	0.24	3	+11.57

434. On the same parallel with 3242.

No.	Star's Name.	Magnitude.	Mean R.A. 1874, Jan. 1.	Fraction of Year for Mean.	No. of Obs. of R.A.	Precess. or Ann. Var. in R.A.	Mean N.P.D. 1874, Jan. 1.	Fraction of Year for Mean.	No. of Obs. of N.P.D.	Precess. or Ann. Var. in N.P.D.
			^h ^m ^s			^s	[°] ['] ["]			["]
451	Lacaille 3396 ...	6.5	8 23 11.35	0.17	3	-0.473	162 59 30.56	0.17	3	+11.73
452	Lacaille 3383 ...	7.6	8 23 14.22	0.10	3	+0.111	159 50 17.88	0.10	3	+11.73
453	Lacaille 3384 ... Lacaille 3384 S.P.	4.5	8 24 21.57	0.35	3 2	+0.678	155 42 59.76 60.64	0.13 0.68	3 2	+11.81
454	Lacaille 3420 ...	7	8 25 5.52	0.15	3	-0.626	163 45 14.13	0.15	3	+11.87
455	η Cancri	6	8 25 25.21	0.26	12	+3.483				
456	Lacaille 3442 ...	7.6	8 26 47.62	0.23	3	-0.793	164 29 48.48	0.23	3	+11.99
457	Lacaille 3424 ...	5.6	8 26 58.10	0.20	3	+0.180	159 40 30.44	0.20	3	+12.00
458	*	7.8	8 26 59.53	0.27	3	-0.769	164 24 53.10	0.27	3	+12.00
459	Lacaille 3432 ...	7	8 28 30.61	0.19	4	+0.595	156 42 56.35	0.18	3	+12.10
460	Lacaille 3453 ...	7.6	8 29 16.58	0.24	3	-0.135	161 39 31.34	0.24	3	+12.16
461	Lacaille 3464 ...	7	8 29 34.00	0.16	3	-0.874	164 56 13.73	0.16	3	+12.19
462	Lacaille 3436 ...	7	8 29 44.59	0.96	3	+0.787	155 5 39.56	0.96	3	+12.20
463	Lacaille 3444 ...	7	8 29 47.91	0.12	3	+0.639	156 26 18.71	0.12	3	+12.20
464	Lacaille 3499 ...	6.7	8 33 20.12	0.15	3	-0.689	164 25 19.27	0.15	3	+12.44
465	Lacaille 3489 ...	6.7	8 33 32.19	0.19	3	-0.340	162 55 28.93	0.19	3	+12.45
466	γ Cancri	4.5	8 35 59.47	0.24	1	+3.491				
467	Lacaille 3510 ...	6.7	8 36 2.23	0.13	3	+0.182	160 14 5.78	0.13	3	+12.62
468	Lacaille 3527 ...	6.7	8 38 25.78	0.14	3	+0.414	158 49 34.21	0.14	3	+12.79
469	Lacaille 3536 ...	6	8 38 36.44	0.17	3	+0.254	159 56 13.97	0.17	3	+12.80
470	Lacaille 3550 ...	6.7	8 39 12.33	0.20	3	-0.540	164 7 31.92	0.20	3	+12.84
471	Lacaille 3559 ...	7	8 39 22.52	0.26	3	-0.660	164 37 11.24	0.26	3	+12.85
472	Lacaille 3535 ...	7.6	8 39 35.47	0.23	3	+0.729	156 21 52.90	0.23	3	+12.86
473	Lacaille 3555 ...	7	8 39 36.16	0.23	3	-0.419	163 37 51.82	0.23	3	+12.87
474	ε Hydre	3.4	8 40 6.11	0.34	10	+3.183				
475	Lacaille 3571 ...	7.6	8 41 41.79	0.15	3	-0.086	162 8 12.18	0.15	3	+13.01
476	Lacaille 3578 ...	7.6	8 42 15.02	0.23	3	-0.284	163 9 34.58	0.23	3	+13.04
477	Lacaille 3568 ...	6	8 42 42.24	0.12	3	+0.594	157 45 13.93	0.12	3	+13.07
478	Lacaille 3562 ...	6.7	8 42 44.50	0.16	3	+0.861	155 22 10.41	0.16	3	+13.07
479	Lacaille 3583 ...	7	8 43 14.20	0.21	3	-0.493	164 9 9.11	0.21	3	+13.11
480	Lacaille 3599 ...	7	8 44 58.25	0.20	3	-0.397	163 50 29.81	0.20	3	+13.22
481	Lacaille 3608 ...	7	8 45 53.62	0.25	3	-0.498	164 19 30.72	0.25	3	+13.28
482	Lacaille 3588 ...	7.6	8 46 26.97	0.14	3	+0.933	154 57 45.32	0.14	3	+13.32
483	Lacaille 3610 ...	7	8 47 41.50	0.17	3	+0.208	160 50 52.23	0.17	3	+13.40
484	Lacaille 3609 ...	6	8 48 52.51	0.18	3	+0.814	156 19 23.28	0.18	3	+13.47
485	Lacaille 3629 ...	6	8 49 52.59	0.21	3	+0.023	162 4 41.12	0.21	3	+13.54

No.	Star's Name.	Magnitude.	Mean R.A. 1874, Jan. 1.	Fraction of Year for Mean.	No. of Obs. of R.A.	Precess. or Ann. Var. in R.A.	Mean N.P.D. 1874, Jan. 1.	Fraction of Year for Mean.	No. of Obs. of N.P.D.	Precess. or Ann. Var. in N.P.D.
			h m s			s	° ' "			"
486	α Cancr.	4	8 51 35.72	0.26		+3.287				
487	Lacaille 3640 ...	7	8 51 52.75	0.14	3	+0.477	159 21 6.43	0.14	3	+13.67
488	Lacaille 3680 ...	7	8 54 57.90	0.16	3	-0.388	164 24 7.42	0.16	3	+13.87
489	Lacaille 3666 ...	7.6	8 55 25.93	0.12	3	+0.936	155 43 1.98	0.12	3	+13.90
490	*	8	8 55 27	0.11	1	+0.936	155 43 13.13	0.11	1	+13.90
491	Lacaille 3674 ...	7	8 56 17.06	0.19	3	+0.550	159 9 11.62	0.19	3	+13.95
492	Lacaille 3679 ...	7	8 56 27.41	0.21	3	+0.358	160 31 41.11	0.21	3	+13.96
493	Lacaille 3688 ...	7	8 57 20.58	0.14	3	-0.142	163 25 59.02	0.14	3	+14.02
494	Lacaille 3682 ...	6.7	8 57 24.17	0.22	5	+0.747	157 38 50.95	0.22	5	+14.02
495	Lacaille 3683 ...	7	8 58 21.74	0.23	4	+0.762	157 35 58.46	0.23	4	+14.08
496	Lacaille 3694 ...	6	8 59 41.78	0.25	3	+0.707	158 11 12.52	0.25	3	+14.16
497	Lacaille 3696 ...	5	9 0 27.09	0.16	3	+0.964	155 53 37.14	0.16	3	+14.21
498	Lacaille 3709 ...	7	9 0 38.84	0.27	3	-0.195	163 54 13.20	0.27	3	+14.22
499	ϵ Cancr.	5	9 0 55.32	0.29	2	+3.258				
500	Lacaille 3714 ...	6.7	9 2 21.24	0.14	3	+0.487	160 6 15.01	0.14	3	+14.33
501	Lacaille 3730 ...	4.5	9 4 35.91	0.20	3	+0.523	160 1 53.54	0.20	3	+14.46
502	Lacaille 3736 ...	5.4	9 4 47.76	0.22	3	+0.208	162 5 45.36	0.22	3	+14.47
503	*	7.8	9 5 17.15	0.25	4	+0.789	157 58 52.03	0.25	4	+14.50
504	Lacaille 3745 ...	7	9 6 5.78	0.16	3	+0.768	158 14 39.93	0.16	3	+14.55
505	*	7	9 6 23.55	0.26	4	+0.796	158 1 0.76	0.26	4	+14.57
506	Lacaille 3767 ...	7	9 7 1.03	0.22	3	-0.174	164 14 39.00	0.22	3	+14.61
507	Lacaille 3752 ...	7.6	9 7 48.98	0.14	3	+1.117	154 58 36.00	0.14	3	+14.66
508	Lacaille 3775 ...	7	9 9 49.94	0.18	3	+0.749	158 44 14.29	0.18	3	+14.77
509	Lacaille 3774 ...	7	9 10 3.30	0.26	3	+0.924	157 12 10.03	0.26	3	+14.79
510	Lacaille 3779 ...	7	9 10 15.19	0.23	3	+0.760	158 41 2.74	0.23	3	+14.80
511	Lacaille 3791 ...	2	9 11 48.44	0.23	3	+0.716	159 11 54.47	0.23	3	+14.89
512	δ Cancr.	6	9 11 56.77	0.22	8	+3.355				
513	Lacaille 3806 ...	6.7	9 15 11.14	0.20	3	+0.982	157 8 47.70	0.20	3	+15.09
514	Lacaille 3811 ...	6.5	9 15 31.13	0.14	3	+0.878	158 9 30.37	0.14	3	+15.11
515	Lacaille 3809 ...	6.7	9 15 41.10	0.20	3	+1.050	156 31 13.54	0.20	3	+15.12
516	Lacaille 3826 ...	7	9 17 21.19	0.21	3	+1.030	156 53 47.74	0.21	3	+15.21
517	Lacaille 3845 ...	6	9 17 35.90	0.24	3	-0.003	164 12 11.26	0.24	3	+15.23
518	Lacaille 3846 ...	6.5	9 17 37.41	0.26	3	-0.036	164 21 46.18	0.26	3	+15.23
519	Lacaille 3850 ...	7	9 18 33.95	0.27	3	+0.278	162 47 10.89	0.27	3	+15.28
520	Lacaille 3868 ...	7	9 19 53.32	0.26	3	+0.247	163 4 3.05	0.26	3	+15.36

490. Star follows Lacaille 3666 one second.
511. A 10 magnitude Star precedes South.

No.	Star's Name.	Magnitude.	Mean R.A. 1874, Jan. 1.	Fraction of Year for Mean.	No. of Obs. of R.A.	Process. or Ann. Var in R.A.	Mean N.P.D. 1874, Jan. 1.	Fraction of Year for Mean.	No. of Obs. of N.P.D.	Process. or Ann. Var. in N.P.D.
521	α Hydre	2	h m s 9 21 23.68	0.30	24	+2.951	0 1 0			0
522	Lacaille 3891	6.7	9 22 59.51	0.27	3	+0.806	159 31 50.74	0.27	3	+15.53
523	Lacaille 3893	8.7	9 23 5.47	0.22	3	+0.766	159 51 55.02	0.22	3	+15.54
524	*	8	9 23 45.17	0.24	1	+0.774	159 51 56.95	0.24	1	+15.57
525	Lacaille 3914	6	9 25 51.12	0.15	3	+0.647	161 3 16.56	0.15	3	+15.68
526	Lacaille 3909	6.7	9 26 2.64	0.19	4	+1.191	156 9 7.97	0.20	3	+15.69
527	Lacaille 3922.....	7.6	9 26 35.53	0.25	3	+0.631	161 13 52.80	0.25	3	+15.72
528	Lacaille 3934.....	7	9 26 46.33	0.28	3	+0.371	162 56 41.43	0.28	3	+15.74
529	Lacaille 4027S.P.	6.7	9 28 29.23	0.70	2	-5.072	174 7 4.71	0.70	2	+15.83
530	Lacaille 3940.....	6	9 29 0.94	0.17	3	+1.220	156 9 43.66	0.17	3	+15.86
531	Lacaille 3957.....	7	9 29 11.23	0.27	3	+0.382	163 5 38.32	0.27	3	+15.87
532	Lacaille 3954.....	7.6	9 30 1.69	0.22	3	+0.847	159 54 41.37	0.22	3	+15.91
533	Lacaille 3968.....	6.5	9 30 38.89	0.20	3	+0.497	162 31 20.08	0.20	3	+15.94
534	Lacaille 3970.....	7	9 30 42.21	0.25	3	+0.389	163 11 22.76	0.25	3	+15.95
535	Lacaille 3963.....	7	9 31 47.32	0.20	3	+1.300	155 33 37.10	0.20	3	+16.00
536	Lacaille 3977.....	7	9 33 21.03	0.19	1	+1.132	157 38 46.42	0.19	3	+16.08
537	ϕ Leonis	4.3	9 34 25.48	0.28	2	+3.219				
538	Lacaille 4005.....	6.7	9 38 15.87	0.20	3	+1.371	155 30 28.35	0.20	3	+16.29
539	ϵ Leonis	3	9 38 41.75	0.27	12	+3.418				
540	Lacaille 4020.....	7	9 39 11.50	0.25	3	+1.172	157 55 47.19	0.25	3	+16.38
541	Lacaille 4018.....	6.7	9 39 28.29	0.20	4	+1.317	156 20 20.15	0.20	4	+16.40
542	Lacaille 4040.....	6.7	9 41 4.77	0.24	3	+0.781	161 36 47.53	0.24	3	+16.48
543	Lacaille 4044.....	7.8	9 41 57.94	0.51	3	+1.077	159 12 53.04	0.51	3	+16.53
544	Lacaille 4043.....	7.6	9 42 25.27	0.27	3	+1.358	156 13 40.21	0.27	3	+16.55
545	Lacaille 4050.....	7.6	9 42 49.36	0.26	4	+1.091	159 10 52.48	0.26	4	+16.57
546	Lacaille 4054.....	7	9 43 28.52	0.18	3	+1.063	159 32 9.44	0.18	3	+16.60
547	μ Leonis	4	9 45 35.59	0.23	1	+3.443				
548	Lacaille 4071.....	7	9 47 17.17	0.18	4	+1.277	157 49 52.27	0.19	3	+16.78
549	Lacaille 4097.....	7.6	9 50 29.48	0.20	3	+0.951	161 20 59.07	0.20	3	+16.94
550	Lacaille 4096.....	7.6	9 50 41.52	0.23	3	+1.012	160 51 32.38	0.23	3	+16.95
551	Lacaille 4099.....	7.6	9 51 20.35	0.24	3	+1.189	159 17 58.63	0.24	3	+16.97
552	Lacaille 4102.....	7	9 52 28.32	0.27	5	+1.272	158 35 32.12	0.27	5	+17.03
553	π Leonis	5	9 53 33.22	0.41	12	+3.176				
554	Lacaille 4116.....	6.7	9 53 57.96	0.22	4	+1.068	160 47 22.25	0.22	4	+17.10
555	Lacaille 4113.....	6.7	9 54 17.18	0.73	3	+1.303	158 30 4.48	0.73	3	+17.11

No. 552. A * 8 mag. precedes 1st and is 7th South.

No.	Star's Name.	Magnitude.	Mean R.A. 1874, Jan. 1.	Fraction of Year for Mean.	No. of Obs. of R.A.	Precess. or Ann. Var. in R.A.	Mean N.P.D. 1874, Jan. 1.	Fraction of Year for Mean.	No. of Obs. of N.P.D.	Precess. or Ann. Var. in N.P.D.
591	Lacaille 4467 ...	6	h m s 10 40 32.13	0.21	3	+1.811	160 11 52.02	0.21	3	+18.86
592	*	6	10 40 44.14	0.30	3	+1.813	160 11 35.74	0.30	3	+18.87
593	Lacaille 4474 ...	6.7	10 40 56.95	0.24	3	+1.699	161 46 59.00	0.24	3	+18.87
594	Lacaille 4490 ...	7	10 42 25.50	0.29	3	+1.489	164 20 39.22	0.29	3	+18.92
595	1 Leonis	5	10 42 37.99	0.28	5	+3.157	78 47 18.87	0.98	1	+18.94
596	Lacaille 4486 ...	6.7	10 42 41.73	0.27	3	+1.946	158 32 45.09	0.27	3	+18.92
597	Lacaille 4491 ...	7.6	10 43 24.72	0.31	3	+1.943	158 46 21.61	0.31	3	+18.95
598	ω Ursæ Majoris	5	10 46 43.14	0.98	1	+3.476	46 8 22.60	0.98	1	+19.04
599	Lacaille 4521 ...	7	10 48 23.82	0.26	4	+2.078	157 32 28.43	0.26	4	+19.08
600	Lacaille 4531 ...	6	10 49 34.40	0.23	3	+1.958	160 2 58.68	0.23	3	+19.12
601	Lacaille 4545 ...	7	10 52 35.85	0.27	3	+2.114	157 59 40.33	0.27	3	+19.19
602	Lacaille 4548 ...	6.7	10 52 54.26	0.30	3	+2.099	158 21 51.68	0.30	3	+19.20
603	Lacaille 4564 ...	6.7	10 53 40.75	0.32	4	+1.703	164 25 33.50	0.32	3	+19.22
604	δ Leonis	5	10 54 3.14	0.20	1	+3.101				
605	Lacaille 4618 ...	7.8	10 58 14.75	0.32	3	+2.224	157 13 53.76	0.32	3	+19.33
606	χ Leonis	5	10 58 31.00	0.32	14	+3.098	81 58 59.56	0.98	1	+19.42
607	Lacaille 4594 ...	8.7	10 58 49.82	0.20	3	+2.024	161 24 38.38	0.20	3	+19.34
608	*	7.8	11 0 46.11	0.33	1	+2.259	157 13 23.82	0.33	1	+19.39
609	Lacaille 4620 ...	7	11 0 56.61	0.33	3	+1.847	164 28 28.80	0.33	3	+19.39
610	Lacaille 4622 ...	7	11 2 15.28	0.35	3	+2.149	160 8 55.30	0.35	3	+19.42
611	Lacaille 4625 ...	6	11 2 17.31	0.35	3	+2.148	160 11 48.80	0.35	3	+19.42
612	Lacaille 4654 ...	6	11 6 50.84	0.30	3	+2.192	160 45 6.87	0.30	3	+19.52
613	δ Leonis	2.3	11 7 24.20	0.47	4	+3.201	68 47 11.05	0.98	1	+19.67
614	Lacaille 4664 ...	7	11 7 24.53	0.32	3	+2.212	160 31 57.01	0.32	3	+19.53
615	Lacaille 4689 ...	7	11 9 37.51	0.35	3	+1.977	165 6 15.98	0.35	3	+19.57
616	Lacaille 4681 ...	7	11 9 53.93	0.36	3	+2.367	157 38 30.01	0.36	3	+19.58
617	Lacaille 4684 ...	7	11 9 58.26	0.38	3	+2.291	159 40 27.07	0.38	3	+19.58
618	Lacaille 4682 ...	7	11 10 13.11	0.39	3	+2.430	155 49 31.45	0.39	3	+19.58
619	Lacaille 4692.....	7	11 11 5.09	0.42	4	+2.388	157 30 41.52	0.42	4	+19.60
620	Lacaille 4701 ...	6.7	11 12 11.13	0.25	3	+2.415	157 8 7.06	0.25	3	+19.62
621	Lacaille 4706 ...	7.6	11 12 30.25	0.33	3	+2.410	157 25 48.41	0.33	3	+19.63
622	δ Crateris.....	3.4	11 13 2.39	0.63	3	+2.995	104 5 48.47	0.98	1	+19.46
623	Lacaille 4716	7	11 14 3.69	0.38	3	+2.173	163 30 4.89	0.38	3	+19.65
624	Lacaille 4722.....	7	11 15 3.93	0.36	3	+2.258	162 16 6.52	0.36	3	+19.67
625	Lacaille 4724.....	6.7	11 15 4.80	0.39	3	+2.136	164 27 11.23	0.39	3	+19.67

No.	Star's Name.	Magnitude.	Mean R.A. 1874, Jan. 1.	Fraction of Year for Mean.	No. of Obs. of R.A.	Precess. or Ann. Var. in R.A.	Mean N.P.D. 1874, Jan. 1.	Fraction of Year for Mean.	No. of Obs. of N.P.D.	Precess. or Ann. Var. in N.P.D.
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626	Lacaille 4721 ...	7.6	11 15 10.86	0.34	3	+2.304	161 18 15.82	0.34	3	+19.67
627	Lacaille 4744 ...	6	11 19 10.27	0.23	3	+2.362	161 33 52.93	0.23	3	+19.74
628	Lacaille 4752 ...	7	11 20 17.60	0.27	3	+2.322	162 56 29.78	0.27	3	+19.75
629	r Leonis	5	11 21 27.46	0.27	4	+3.086				
630	Lacaille 4765 ...	6.7	11 23 9.82	0.29	3	+2.422	161 46 48.12	0.29	3	+19.80
631	Lacaille 4780 ...	7.8	11 26 18.98	0.26	3	+2.603	157 21 45.91	0.26	3	+19.84
632	Lacaille 4786 ...	7.6	11 26 37.17	0.32	3	+2.430	163 12 26.60	0.32	3	+19.84
633	Lacaille 4782 ...	5	11 26 44.35	0.30	3	+2.633	156 15 59.72	0.30	3	+19.84
634	Lacaille 4791 ...	7	11 27 57.70	0.34	3	+2.575	159 29 56.08	0.34	3	+19.86
635	Lacaille 4813 ...	6.7	11 30 24.97	0.36	3	+2.539	162 8 48.57	0.36	3	+19.89
636	v Leonis	5.4	11 30 29.83	0.30	14	+3.069				
637	Lacaille 4822 ...	6	11 31 38.27	0.27	3	+2.643	158 58 36.51	0.27	3	+19.90
638	Lacaille 4826 ...	6.7	11 32 6.82	0.28	3	+2.692	156 55 21.87	0.28	3	+19.91
639	Lacaille 4828 ...	7	11 32 16.45	0.33	3	+2.728	154 57 28.97	0.33	3	+19.91
640	Lacaille 4840 ...	7	11 33 5.12	0.35	3	+2.601	161 40 12.31	0.35	3	+19.92
641	Lacaille 4855 ...	7	11 34 37.33	0.27	3	+2.689	158 58 22.16	0.27	3	+19.93
642	Lacaille 4866 ...	6.7	11 36 42.04	0.38	3	+2.582	164 31 42.35	0.38	3	+19.95
643	Lacaille 4870 ...	7	11 37 25.75	0.29	3	+2.675	161 44 47.52	0.29	3	+19.96
644	Lacaille 4871 ...	7	11 37 44.55	0.34	3	+2.756	157 46 46.78	0.34	3	+19.96
645	Lacaille 4879 ...	7	11 39 8.21	0.35	3	+2.688	162 27 4.27	0.35	3	+19.97
646	Lacaille 4883 ...	5	11 39 40.29	0.33	3	+2.806	156 1 48.33	0.33	3	+19.98
647	Lacaille 4891 ...	7.8	11 40 27.22	0.25	3	+2.757	160 12 14.98	0.25	3	+19.98
648	*	7.8	11 40 35.07	0.25	2	+2.759	160 12 36.07	0.25	2	+19.98
649	Lacaille 4896 ...	7	11 41 41.07	0.37	3	+2.821	156 59 31.49	0.37	3	+19.99
650	Lacaille 4899 ...	5	11 42 11.55	0.31	3	+2.838	156 6 50.54	0.31	3	+19.99
651	β Leonis	2	11 42 37.88	0.45	7	+3.064				
652	Lacaille 4907 ...	5	11 43 55.75	0.34	3	+2.823	159 31 30.88	0.34	3	+20.00
653	Lacaille 4915 ...	7.8	11 44 42.10	0.33	3	+2.784	162 50 3.74	0.33	3	+20.01
654	Lacaille 4912 ...	7	11 44 50.90	0.31	3	+2.860	157 22 47.24	0.31	3	+20.01
655	Lacaille 4935 ...	6	11 48 30.99	0.27	3	+2.925	155 40 21.99	0.27	3	+20.03
656	Lacaille 4962 ...	7	11 52 12.87	0.27	3	+2.948	160 2 18.80	0.27	3	+20.04
657	π Virginis	4.5	11 54 24.96	0.33	2	+3.077				
658	Lacaille 4980 ...	7.6	11 55 19.95	0.38	3	+3.003	158 29 45.33	0.38	3	+20.05
659	Lacaille 4981 ...	6.7	11 55 27.80	0.31	3	+2.989	162 35 48.03	0.31	3	+20.05
660	Lacaille 4984 ...	6.7	11 56 4.45	0.33	3	+3.008	160 47 15.86	0.33	3	+20.05

No.	Star's Name.	Magnitude.	Mean R.A. 1874, Jan. 1.	Fraction of Year for Mean.	No. of Obs. of R.A.	Precess. or Ann. Var. in R. A.	Mean N.P.D. 1874, Jan. 1.	Fraction of Year for Mean.	No. of Obs. of N.P.D.	Precess. or Ann. Var. in N.P.D.
			h m s			s	° ' "			"
661	Lacaille 4985 ...	6	11 56 12.53	0.35	3	+3.017	158 29 25.43	0.35	3	+20.05
662	Lacaille 4996 ...	7.6	11 57 16.36	0.37	3	+3.019	163 30 44.68	0.37	3	+20.05
663	Lacaille 5000....	5	11 58 10.00	0.27	3	+2.947	157 37 37.49	0.27	3	+20.05
664	Lacaille 5012....	6.7	11 59 22.37	0.39	3	+3.065	154 50 42.98	0.39	3	+20.05
665	Lacaille 5018....	7	11 59 36.69	0.42	4	+3.067	158 25 32.92	0.42	4	+20.05
666	Lacaille 5017....	6.7	11 59 37.44	0.43	3	+3.065	162 51 19.33	0.43	3	+20.05
667	Lacaille 5019....	6.7	11 59 47.20	0.28	3	+3.069	157 56 59.26	0.28	3	+20.05
668	Lacaille 5020....	6	11 59 51.81	0.32	3	+3.070	155 0 27.01	0.32	3	+20.06
669	Lacaille 5028....	6	12 1 13.32	0.36	3	+3.099	164 39 59.19	0.36	3	+20.06
670	Lacaille 5040....	7	12 3 0.76	0.35	3	+3.113	156 45 9.30	0.35	3	+20.05
671	α Corvi	3	12 3 38.73	0.46	15	+3.076	111 55 8.20	0.98	1	+20.04
672	Lacaille 5047....	6.7	12 4 20.08	0.28	3	+3.134	157 33 32.74	0.28	3	+20.05
673	Lacaille 5060....	6	12 6 1.19	0.30	3	+3.166	159 27 2.25	0.30	3	+20.05
674	Lacaille 5072....	7.6	12 7 32.10	0.32	3	+3.171	155 50 52.09	0.32	3	+20.04
675	*	7.6	12 7 40.70	0.32	3	+3.172	155 49 26.30	0.32	3	+20.04
676	Lacaille 5079....	7.6	12 9 27.89	0.35	3	+3.242	161 54 48.38	0.35	3	+20.04
677	Lacaille 5081....	7	12 9 59.70	0.38	3	+3.268	163 26 35.37	0.38	3	+20.04
678	Lacaille 5083....	6.7	12 10 17.92	0.39	3	+3.201	154 59 32.43	0.39	3	+20.03
679	Lacaille 5084....	5	12 10 46.87	0.41	3	+3.223	157 15 35.46	0.41	3	+20.03
680	η Virginis	3.4	12 13 27.56	0.33	20	+3.065				
681	Lacaille 5100....	6	12 13 34.49	0.34	2	+3.243	155 8 33.20	0.34	2	+20.02
682	*	7.8	12 13 36.02	0.36	1	+3.243	155 6 49.07	0.36	1	+20.02
683	Lacaille 5111....	7	12 15 4.11	0.42	3	+3.356	162 48 14.60	0.42	3	+20.01
684	Lacaille 5112....	6	12 15 8.34	0.38	3	+3.279	156 49 21.36	0.38	3	+20.01
685	Lacaille 5113....	6	12 15 10.96	0.39	3	+3.287	157 36 22.44	0.39	3	+20.01
686	Lacaille 5123 ...	6	12 16 28.07	0.33	3	+3.298	156 56 30.26	0.33	3	+20.00
687	Lacaille 5132....	7	12 17 37.20	0.44	3	+3.387	161 54 18.50	0.44	3	+20.00
688	Lacaille 5133 ...	7	12 17 45.26	0.32	3	+3.316	156 56 3.66	0.32	3	+20.00
689	Lacaille 5137 ...	7	12 18 16.76	0.35	3	+3.302	155 4 3.87	0.35	3	+19.99
690	Lacaille 5139 ...	7	12 18 21.56	0.44	3	+3.347	158 46 41.49	0.44	3	+19.99
691	Lacaille 5149 ...	7.8	12 20 5.70	0.37	3	+3.504	164 46 30.21	0.37	3	+19.98
692	Lacaille 5158 ...	7	12 20 50.27	0.39	3	+3.373	158 1 45.83	0.39	3	+19.97
693	Lacaille 5166 ...	7.6	12 22 49.28	0.32	4	+3.489	162 17 16.23	0.32	3	+19.96
694	Lacaille 5170 ...	7	12 23 11.91	0.43	3	+3.498	162 23 30.03	0.43	3	+19.95
695	Lacaille 5168 ...	7.6	12 23 14.78	0.26	3	+3.569	164 42 13.00	0.26	3	+19.95

No.	Star's Name.	Magnitude.	Mean R.A. 1874, Jan. 1.	Fraction of Year for Mean.	No. of Obs. of R.A.	Process. or Ann. Var. in R.A.	Mean N.P.D. 1874, Jan. 1.	Fraction of Year for Mean.	No. of Obs. of N.P.D.	Process. or Ann. Var. in N.P.D.
			^h ^m ^s			^s	[°] ['] ["]			^s
696	δ^2 Corvi	2.3	12 23 20.83	0.94	1	+3.111	105 48 48.81	0.94	1	+19.95
697	Lacaille 5181 ...	6	12 24 35.09	0.31	4	+3.512	162 18 15.43	0.31	3	+19.94
698	Lacaille 5184 ...	5.4	12 24 58.36	0.43	3	+3.505	161 26 11.98	0.43	3	+19.94
699	Lacaille 5183 ...	7	12 25 2.36	0.45	3	+3.547	162 57 35.81	0.45	3	+19.94
700	Lacaille 5182 ...	7	12 25 5.49	0.39	3	+3.609	164 44 16.20	0.39	3	+19.93
701	Lacaille 5194 ...	7	12 26 21.34	0.38	3	+3.453	158 2 58.08	0.38	3	+19.92
702	Lacaille 5203 ...	7.6	12 27 32.47	0.39	3	+3.451	157 3 42.98	0.39	3	+19.91
703	β Corvi	2.3	12 27 46.21	0.58	20	+3.132	112 41 58.04	0.92	1	+19.98
704	Lacaille 5206 ...	7	12 28 7.41	0.31	3	+3.471	157 39 21.66	0.31	3	+19.90
705	Lacaille 5210 ...	7	12 29 3.83	0.28	3	+3.461	156 28 35.38	0.28	3	+19.89
706	Lacaille 5213 ...	3	12 29 41.61	0.34	3	+3.509	158 26 26.80	0.34	3	+19.89
707	Lacaille 5219 ...	7	12 30 28.53	0.41	4	+3.532	158 54 32.57	0.42	3	+19.88
708	Lacaille 5221 ...	7.6	12 31 11.77	0.41	3	+3.734	164 40 39.20	0.41	3	+19.87
709	Lacaille 5224 ...	6.7	12 31 25.16	0.28	3	+3.493	156 29 57.81	0.28	3	+19.87
710	Lacaille 5227 ...	6.7	12 32 29.47	0.37	4	+3.493	155 49 4.85	0.37	4	+19.85
711	Lacaille 5228 ...	7	12 32 51.24	0.37	3	+3.593	159 51 16.05	0.37	3	+19.85
712	Brisbane 4091 ...	7	12 33 11				179 6 26.67	0.32	2	+19.84
	Brisbane 4091 S.P.						27.00	0.83	2	
713	Lacaille 5236 ...	6	12 34 24.86	0.34	3	+3.585	158 42 55.73	0.34	3	+19.83
714	γ Virginis (mean)	3.2	12 35 16.50	0.42	5	+3.038				
715	γ^1 Virginis	3.2	12 35 16.66	0.92	1	+3.038	90 45 26.37	0.92	1	+19.87
716	γ^2 Virginis	3.2	12 35 16.59	0.92	1	+3.038	90 45 30.18	0.93	1	+19.87
717	Lacaille 5255 ...	6.7	12 37 18.79	0.28	3	+3.613	158 8 24.87	0.28	3	+19.79
718	Lacaille 5267 ...	3.4	12 38 34.59	0.35	3	+3.612	157 25 4.54	0.35	3	+19.78
719	Lacaille 5275 ...	7	12 40 34.63	0.32	3	+3.614	156 26 31.37	0.32	3	+19.74
720	35 Virginis	6	12 41 26.49	0.42	2	+3.054				
721	Lacaille 5279 ...	6.5	12 41 36.90	0.36	3	+3.787	161 17 53.72	0.36	3	+19.73
722	Lacaille 5297 ...	7	12 45 29.16	0.31	3	+3.821	160 35 15.94	0.31	3	+19.66
723	Lacaille 5310 ...	7	12 47 23.41	0.35	3	+3.936	162 20 54.07	0.35	3	+19.63
724	Lacaille 5318 ...	6	12 48 8.57	0.37	3	+3.906	161 30 5.18	0.37	3	+19.62
725	δ Virginis	3	12 49 15.41	0.46	1	+3.052				
726	Lacaille 5323 ...	7.6	12 49 25.20	0.39	3	+3.756	157 16 38.31	0.39	3	+19.59
727	Lacaille 5327 ...	7	12 49 41.15	0.42	3	+3.688	154 57 54.34	0.42	3	+19.59
728	Lacaille 5335 ...	7.8	12 51 15.33	0.35	3	+3.895	160 9 11.00	0.35	3	+19.56
729	Lacaille 5349 ...	3	12 53 38.29	0.32	3	+3.966	160 52 6.47	0.32	3	+19.50
730	Lacaille 5356 ...	6	12 54 33.18	0.33	3	+3.978	160 47 47.65	0.33	3	+19.49

719. On May 1, a Star 7.8 magnitude was observed. R.A. 12^h. 40^m. 36.70^s. N.P.D 156° 26'

No.	Star's Name.	Magnitude.	Mean R.A. 1874, Jan. 1.	Fraction of Year for Mean.	No. of Obs. of R.A.	Precess. or Ann. Var. in R.A.	Mean N.P.D. 1874, Jan. 1.	Fraction of Year for Mean.	No. of Obs. of N.P.D.	Precess. or Ann. Var. in N.P.D.
			h m s			s	° ' "			"
731	Lacaille 5378 ...	7	12 58 35.98	0.34	4	+4.174	162 54 37.40	0.34	3	+19.40
732	Lacaille 5393 ...	7.6	13 0 8.55	0.32	3	+3.894	157 7 20.00	0.32	3	+19.37
733	Lacaille 5409 ...	6.5	13 3 11.77	0.35	3	+4.034	159 16 14.54	0.35	3	+19.30
734	θ Virginis	4.5	13 3 25.63	0.41	23	+3.099				
735	Lacaille 5416 ...	6	13 4 30.10	0.37	3	+3.889	155 33 23.93	0.37	3	+19.26
736	Lacaille 5430 ...	7	13 6 29.40	0.37	3	+4.113	159 48 33.47	0.37	3	+19.22
737	*	7.6	13 6 39.44	0.47	3	+3.985	157 12 41.68	0.47	3	+19.22
738	Lacaille 5433 ...	5.4	13 6 44.17	0.33	3	+3.986	157 13 33.30	0.33	3	+19.21
739	Lacaille 5432 ...	7	13 6 44.39	0.42	3	+4.074	159 0 35.85	0.42	3	+19.21
740	Lacaille 5445 ...	7	13 8 40.45	0.44	3	+4.338	162 40 37.13	0.44	3	+19.16
741	Lacaille 5451 ...	5	13 8 45.12	0.37	3	+3.966	156 6 59.95	0.37	3	+19.16
742	Lacaille 5455 ...	7	13 9 12.22	0.41	3	+4.026	157 22 26.86	0.41	3	+19.15
743	Lacaille 5456 ...	6.7	13 9 15.98	0.45	3	+4.050	157 49 46.21	0.45	3	+19.14
744	Lacaille 5459 ...	5.6	13 10 8.80	0.46	3	+4.268	161 22 7.56	0.46	3	+19.12
745	Lacaille 5463 ...	7	13 10 59.43	0.38	3	+4.204	160 11 24.11	0.38	3	+19.10
746	Lacaille 5470 ...	7	13 11 46.31	0.40	4	+4.147	159 1 0.76	0.40	4	+19.08
747	Lacaille 5481 ...	7	13 13 3.96	0.38	3	+4.218	159 53 5.65	0.38	3	+19.04
748	Lacaille 5480 ...	6	13 13 34.23	0.31	3	+4.334	161 29 5.68	0.31	3	+19.03
749	Lacaille 5486 ...	6	13 15 14.44	0.43	3	+4.601	164 13 27.42	0.43	3	+18.98
750	Lacaille 5497 ...	7	13 15 38.75	0.41	3	+4.248	159 46 0.23	0.41	3	+18.97
751	Lacaille 5508 ...	7	13 16 38.55	0.45	3	+4.152	157 52 12.02	0.45	3	+18.94
752	Lacaille 5506 ...	6	13 16 41.31	0.38	3	+4.276	159 58 9.02	0.38	3	+18.94
753	Lacaille 5504 ...	7.6	13 17 21.01	0.43	3	+4.620	164 2 3.50	0.43	3	+18.93
754	α Virginis	1	13 18 33.37	0.50	14	+3.151				
755	Lacaille 5528 ...	7	13 19 31.43	0.39	3	+4.154	157 12 50.03	0.39	3	+18.86
756	Lacaille 5529 ...	7.6	13 19 40.05	0.31	3	+4.257	158 58 18.44	0.31	3	+18.86
757	Lacaille 5566 ...	6	13 24 50.24	0.36	3	+4.109	154 58 58.47	0.36	3	+18.70
758	Lacaille 5567 ...	7.6	13 25 0.79	0.40	3	+4.132	155 25 46.34	0.40	3	+18.69
759	Lacaille 5568 ...	7	13 25 59.28	0.37	3	+4.644	162 40 48.60	0.37	3	+18.67
760	ζ Virginis	3.4	13 28 16.31	0.37	7	+3.053				
761	Lacaille 5587 ...	6	13 29 14.61	0.42	3	+4.454	159 48 1.34	0.42	3	+18.55
762	Lacaille 5594 ...	7.6	13 30 4.91	0.39	3	+4.281	157 1 18.27	0.39	3	+18.52
763	Lacaille 5595 ...	7.6	13 30 22.32	0.37	3	+4.497	160 8 43.91	0.37	3	+18.51
764	Lacaille 5592 ...	7	13 31 0.01	0.44	3	+4.934	164 28 29.68	0.44	3	+18.50
765	Lacaille 5597 ...	7	13 31 21.23	0.43	3	+4.599	161 13 43.82	0.43	3	+18.48

747. Lacaille's N.P.D. is 5' too large.
755. Close double; magnitudes 7 and 8.9.

No.	Star's Name.	Magnitude.	Mean R.A. 1874, Jan. 1.	Fraction of Year for Mean.	No. of Obs. of R.A.	Precess. or Ann. Var. in R.A.	Mean N.P.D. 1874, Jan. 1.	Fraction of Year for Mean.	No. of Obs. of N.P.D.	Precess. or Ann. Var. in N.P.D.
			h m s			s	° ' "			"
766	Lacaille 5619 ...	7	13 33 59.16	0.40	3	+4.817	162 59 59.46	0.40	3	+18.39
767	Lacaille 5630 ...	7	13 35 12.96	0.39	3	+4.633	160 53 48.18	0.39	3	+18.35
768	Lacaille 5642 ...	7	13 36 6.99	0.36	3	+4.303	156 7 10.08	0.36	3	+18.32
769	Lacaille 5651 ...	7	13 37 37.01	0.41	3	+4.642	160 35 52.64	0.41	3	+18.26
770	Lacaille 5666 ...	7.6	13 40 54.94	0.44	3	+4.883	162 30 56.59	0.44	3	+18.14
771	Lacaille 5678 ...	6.5	13 42 1.82	0.37	3	+4.554	158 46 28.12	0.37	3	+18.10
772	Lacaille 5677 ...	7	13 42 31.07	0.41	3	+4.923	162 38 32.08	0.41	3	+18.08
773	Lacaille 5679 ...	7	13 43 5.50	0.42	3	+4.622	159 25 19.24	0.42	3	+18.06
774	Lacaille 5687 ...	7.6	13 43 56.86	0.45	3	+4.382	155 53 16.87	0.45	3	+18.03
775	Lacaille 5689 ...	7	13 44 24.03	0.42	3	+4.521	157 52 54.64	0.42	3	+18.01
776	Lacaille 5693 ...	7	13 44 56.16	0.47	3	+4.508	157 36 48.87	0.47	3	+17.99
777	Lacaille 5698 ...	7	13 45 11.18	0.49	3	+4.420	156 16 40.25	0.49	3	+17.98
778	Lacaille 5696 ...	6.5	13 45 16.03	0.45	3	+4.472	157 1 44.96	0.45	3	+17.97
779	Lacaille 5707 ...	7.6	13 46 27.65	0.43	4	+4.404	155 45 51.73	0.43	4	+17.93
780	Lacaille 5721 ...	7	13 47 49.09	0.37	3	+4.528	157 23 12.83	0.37	3	+17.88
781	η Boötis	3	13 48 41.04	0.44	3	+2.858				
782	Lacaille 5740 ...	6	13 49 8.65	0.40	3	+4.398	155 10 57.14	0.40	3	+17.83
783	Lacaille 5745 ...	7	13 49 39.12	0.43	3	+4.539	157 13 28.32	0.43	3	+17.80
784	Lacaille 5755 ...	7	13 50 36.18	0.39	3	+4.399	154 55 37.37	0.39	3	+17.76
785	Lacaille 5761 ...	6	13 51 24.38	0.37	3	+4.454	155 39 17.10	0.37	3	+17.73
786	β Centauri	1	13 54 57				149 45 48.44	0.86	1	+17.59
787	τ Virginis	4.5	13 55 14.10	0.44	22	+3.049				
788	Lacaille 5781 ...	6	13 56 56.66	0.39	3	+5.390	164 15 11.80	0.39	3	+17.50
789	94 Virginis	6	13 59 37.59	0.45	1	+3.169				
790	Lacaille 5804 ...	6	14 0 3.01	0.36	3	+4.883	159 42 21.02	0.36	3	+17.36
791	Lacaille 5811 ...	6	14 0 41.27	0.41	3	+4.834	159 7 11.94	0.41	3	+17.34
792	Lacaille 5831 ...	7	14 3 57.72	0.38	3	+4.743	157 35 49.57	0.38	3	+17.19
793	Lacaille 5836 ...	7.6	14 4 55.44	0.42	3	+4.567	155 6 32.04	0.42	3	+17.15
794	Lacaille 5846 ...	6	14 6 43.21	0.37	3	+4.650	155 59 55.51	0.37	3	+17.07
795	Lacaille 5853 ...	7	14 7 41.38	0.43	3	+4.775	157 27 21.73	0.43	3	+17.02
796	Lacaille 5847 ...	6.7	14 8 12.73	0.41	3	+5.453	163 23 0.46	0.41	3	+16.99
797	α Boötis	1	14 9 54.84	0.52	18	+2.734	70 9 37.21	0.92	1	+18.85
798	Lacaille 5865 ...	7.8	14 10 57.13	0.37	3	+5.435	162 58 31.31	0.37	3	+16.87
799	Lacaille 5890 ...	6.5	14 14 41.34	0.39	3	+4.872	157 37 12.91	0.39	3	+16.69
800	Lacaille 5899 ...	7.6	14 15 36.75	0.41	3	+4.717	155 35 55.47	0.41	3	+16.64

No.	Star's Name.	Magnitude.	Mean R.A. 1874, Jan. 1.	Fraction of Year for Mean.	No. of Obs. of R.A.	Precess. or Ann. Var. in R.A.	Mean N.P.D. 1874, Jan. 1.	Fraction of Year for Mean.	No. of Obs. of N.P.D.	Precess. or Ann. Var. in N.P.D.
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801	Lacaille 5908	6.5	14 17 5.13	0.43	3	+4.706	155 15 0.86	0.43	3	+16.57
802	B.A.C 4782.....	6.5	14 20 47.21	0.43	3	+4.902	157 9 3.45	0.43	3	+16.39
803	Lacaille 5948....	7	14 23 18.93	0.38	3	+4.921	157 3 28.73	0.38	3	+16.26
804	Lacaille 5944	7.6	14 23 20.09	0.45	3	+5.655	163 8 9.03	0.45	3	+16.26
805	ρ Boötis	4.3	14 26 23.97	0.39	1	+2.587				
806	Lacaille 5976	6	14 27 13.78	0.42	4	+4.994	157 22 13.77	0.44	3	+16.05
807	Lacaille 5986.....	7.6	14 28 45.92	0.44	3	+5.039	157 39 15.14	0.44	3	+15.97
808	Z Octantis	6.7	14 28 49.36	0.62	7	+22.592	177 37 40.66	0.52	30	+15.97
	Z Octantis S.P.				8		40.98	0.82	20	
809	Lacaille 5972.....	6.7	14 28 50.72	0.47	3	+6.008	164 35 32.66	0.47	3	+15.97
810	α Centauri	1	14 31 3.00	0.92	1	+4.040	150 18 51.72	0.86	2	+15.01
811	α Centauri	3	14 31 3.71	0.92	1	+4.040				
812	Lacaille 6011.....	7	14 33 2.83	0.38	3	+5.245	159 7 50.92	0.38	3	+15.75
813	Lacaille 6046.....	7.6	14 36 55.49	0.43	3	+5.165	157 59 11.63	0.43	3	+15.53
814	Lacaille 6045.....	7.6	14 37 8.18	0.46	4	+5.407	160 4 1.04	0.46	4	+15.52
815	*	7	14 37 53.60	0.49	3	+4.981	155 59 40.47	0.49	3	+15.48
816	Lacaille 6059.....	6	14 38 6.16	0.44	3	+4.990	156 3 44.63	0.44	3	+15.47
817	Lacaille 6044.....	6.7	14 38 18.50	0.46	4	+6.126	164 24 19.29	0.47	3	+15.46
818	Lacaille 6061.....	7.8	14 38 56.49	0.43	3	+5.422	160 0 24.24	0.43	3	+15.42
819	ϵ^2 Boötis	2.3	14 39 28.99	0.57	7	+2.619				
820	Lacaille 6066.....	6.5	14 40 40.65	0.37	3	+5.837	162 40 3.53	0.37	3	+15.32
821	Lacaille 6089.....	7	14 42 42.62	0.42	3	+5.326	158 51 7.47	0.42	3	+15.21
822	Lacaille 6085.....	7	14 43 12.33	0.37	3	+5.869	162 38 48.65	0.37	3	+15.18
823	Lacaille 6093.....	6.7	14 43 22.36	0.43	3	+5.392	159 20 29.70	0.43	3	+15.17
824	α^3 Libræ	2.3	14 43 54.60	0.50	21	+3.309				
825	Lacaille 6106.....	6.7	14 44 3.93	0.45	3	+4.996	155 28 20.10	0.45	3	+15.13
826	Lacaille 6105.....	6.7	14 46 24.65	0.45	3	+6.280	164 31 16.49	0.45	3	+14.99
827	Lacaille 6128.....	7.6	14 49 12.54	0.41	3	+5.684	160 59 1.44	0.41	3	+14.83
828	Lacaille 6136.....	7.6	14 50 3.05	0.44	3	+5.251	157 28 39.25	0.44	3	+14.78
829	Lacaille 6144.....	7	14 51 12.76	0.45	3	+5.608	160 17 5.13	0.45	3	+14.72
830	Lacaille 6150.....	7.6	14 52 40.70	0.37	3	+5.837	161 41 25.12	0.37	3	+14.63
831	Lacaille 6158.....	6.7	14 53 51.00	0.37	3	+5.850	161 40 24.40	0.37	3	+14.56
832	Lacaille 6163.....	7	14 54 0.36	0.41	3	+5.692	160 38 6.90	0.41	3	+14.55
833	Lacaille 6167.....	6	14 54 40.06	0.46	3	+5.818	161 24 37.93	0.46	3	+14.51
834	Lacaille 6169.....	6.7	14 56 5.75	0.44	3	+6.535	164 58 18.62	0.44	3	+14.42
835	Lacaille 6184.....	7	14 56 21.64	0.45	3	+5.906	161 49 0.35	0.45	3	+14.41

828. A Star of the 8.9 magnitude precedes.

831. Very close double Star.

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836	Lacaille 6185 ...	7	14 56 42.50	0.47	3	+5.664	160 13 8.89	0.47	3	+14.38
837	Lacaille 6193 ...	6.7	14 58 3.26	0.52	3	+5.421	158 13 57.24	0.52	3	+14.30
838	Lacaille 6189 ...	7.6	14 58 4.37	0.50	4	+5.824	161 10 35.00	0.50	4	+14.30
839	Lacaille 6197 ...	6	14 58 19.60	0.47	3	+5.240	156 35 46.81	0.47	3	+14.29
840	ψ Boötis	4.5	14 59 2.84	0.57	3	+2.570				
841	Lacaille 6196 ...	6	14 59 39.07	0.45	3	+6.029	162 17 14.11	0.45	3	+14.20
842	Lacaille 6213 ...	7	15 0 17.60	0.44	3	+5.327	157 13 34.71	0.44	3	+14.17
843	Lacaille 6220 ...	7	15 2 0.89	0.42	3	+5.705	160 4 51.37	0.42	3	+14.05
844	Lacaille 6222 ...	6	15 2 15.98	0.45	3	+5.640	159 36 4.72	0.45	3	+14.04
845	Lacaille 6227 ...	7	15 3 7.30	0.42	3	+5.711	160 2 16.82	0.42	3	+13.99
846	Lacaille 6234 ...	7	15 3 47.20	0.47	3	+5.704	159 56 16.17	0.47	2	+13.98
847	Lacaille 6251 ...	7	15 6 7.37	0.43	3	+5.214	155 37 19.10	0.43	3	+13.80
848	Lacaille 6247 ...	6.7	15 6 45.56	0.46	3	+5.952	161 19 28.18	0.46	3	+13.76
849	*	7.8	15 7 4.33	0.53	3	+5.260	155 59 33.22	0.53	3	+13.74
850	Lacaille 6255...	3.4	15 7 10.77	0.44	3	+5.511	158 12 40.74	0.44	3	+13.73
851	Lacaille 6264 ...	7	15 8 31.50	0.49	3	+5.277	156 1 51.70	0.49	3	+13.65
852	Lacaille 6252 ...	7.6	15 8 35.25	0.49	3	+6.478	163 56 15.22	0.49	3	+13.64
853	*	8.7	15 8 47.67	0.54	3	+5.285	156 5 22.05	0.54	3	+13.63
854	Lacaille 6268 ...	6.7	15 9 11.60	0.51	3	+5.389	157 1 5.40	0.51	3	+13.60
855	β Libræ	2	15 10 13.68	0.51	10	+3.218	98 55 0.91	0.92	1	+13.54
856	Lacaille 6290 ...	7.6	15 11 19.69	0.42	3	+5.272	155 45 8.99	0.42	3	+13.46
857	Lacaille 6281 ...	8.7	15 11 59.53	0.44	3	+6.058	161 35 29.01	0.44	3	+13.42
858	Lacaille 6285 ...	7.6	15 12 8.77	0.45	3	+5.938	160 51 59.87	0.45	3	+13.41
859	Lacaille 6308 ...	6.5	15 14 23.61	0.46	3	+5.537	157 51 33.19	0.46	3	+13.26
860	Lacaille 6321 ...	7.8	15 15 35.65	0.50	3	+5.284	155 30 40.08	0.50	3	+13.18
861	*	7.6	15 16 9.73	0.53	3	+5.305	155 40 26.54	0.53	3	+13.15
862	Lacaille 6323 ...	6	15 17 49.98	0.49	5	+6.386	162 56 56.30	0.50	4	+13.03
863	Lacaille 6331 ...	7.6	15 17 52.14	0.45	3	+6.060	161 12 44.68	0.45	3	+13.03
864	Lacaille 6345 ...	7	15 17 59.80	0.43	3	+5.297	155 26 47.05	0.43	3	+13.03
865	Lacaille 6346 ...	7.8	15 18 12.31	0.42	3	+5.474	157 2 34.66	0.42	3	+13.01
866	Lacaille 6340 ...	7	15 18 42.39	0.53	3	+5.971	160 37 21.05	0.53	3	+12.98
867	Lacaille 6358 ...	7	15 19 58.02	0.46	3	+5.320	155 30 19.88	0.46	3	+12.89
868	*	7.8	15 20 50.10	0.45	1	+5.489	156 58 8.85	0.44	2	+12.84
869	Lacaille 6371 ...	7	15 21 52.66	0.48	3	+5.491	156 54 21.96	0.48	3	+12.76
870	Lacaille 6369 ...	7	15 22 39.92	0.43	3	+6.335	162 24 38.26	0.43	3	+12.71

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871	Lacaille 6394 ...	7	15 24 55.23	0.43	3	+5.427	156 7 14.03	0.43	3	+12.56
872	Lacaille 6397 ...	6.7	15 24 59.77	0.46	3	+5.327	155 11 8.05	0.46	3	+12.55
873	Lacaille 6386 ...	7	15 25 43.34	0.48	3	+6.267	161 52 33.00	0.48	3	+12.50
874	Lacaille 6390 ...	5.6	15 26 25.86	0.49	3	+6.507	163 1 37.30	0.49	3	+12.45
875	Lacaille 6403 ...	6	15 27 33.30	0.43	3	+5.933	159 48 30.09	0.43	3	+12.38
876	Lacaille 6401 ...	7	15 27 46.44	0.46	3	+6.188	161 19 40.43	0.46	3	+12.36
877	α Coronæ Borealis	2	15 29 21.10	0.59	3	+2.529	62 51 35.66	0.97	1	+12.25
878	Lacaille 6423 ...	7	15 30 47.64	0.43	3	+5.972	159 51 21.66	0.43	3	+12.15
879	*	7.8	15 31 35.71	0.51	3	+5.985	159 53 14.37	0.51	3	+12.10
880	Lacaille 6477 ...	6	15 36 25.34	0.41	3	+5.400	155 2 38.13	0.41	3	+11.76
881	α Serpentis.	2.3	15 38 3.73	0.57	18	+2.951	83 10 34.86	0.92	1	+11.59
882	Lacaille 6501 ...	7	15 40 29.97	0.42	3	+5.689	157 15 11.94	0.42	3	+11.47
883	Lacaille 6494 ...	7	15 40 52.14	0.44	3	+6.504	162 14 45.56	0.44	3	+11.44
884	Lacaille 6518 ...	6.5	15 43 4.52	0.45	4	+5.839	158 13 25.42	0.45	3	+11.28
885	Lacaille 6512 ...	7	15 44 14.53	0.47	3	+6.651	162 46 26.16	0.47	3	+11.19
886	Lacaille 6534 ...	7	15 46 6.88	0.46	3	+6.264	160 44 4.91	0.46	2	+11.07
887	*	7.6	15 46 11.76	0.46	3	+6.265	160 44 29.16	0.46	3	+11.06
888	Lacaille 6536 ...	6.7	15 46 51.14	0.46	3	+6.533	162 5 39.99	0.46	3	+11.01
889	Lacaille 6542 ...	7.6	15 47 48.20	0.43	3	+6.773	163 8 55.88	0.43	3	+10.94
890	Lacaille 6573 ...	6	15 51 55.95	0.45	3	+6.573	162 2 58.85	0.45	3	+10.63
891	Lacaille 6597 ...	7	15 53 11.79	0.43	3	+5.900	158 4 59.18	0.43	3	+10.54
892	Lacaille 6591 ...	7	15 54 7.07	0.45	3	+6.501	161 35 43.67	0.45	3	+10.47
893	Lacaille 6606 ...	7	15 55 42.22	0.47	3	+6.746	162 40 57.34	0.47	3	+10.35
894	Lacaille 6613 ...	7	15 55 47.91	0.49	3	+6.346	160 42 43.14	0.49	3	+10.34
895	β ¹ Scorpii	2	15 58 6.73	0.57	17	+3.477	109 27 31.88	0.97	2	+10.19
896	Lacaille 6682 ...	7.6	16 3 36.00	0.42	3	+6.403	160 40 6.79	0.42	3	+ 9.75
897	Lacaille 6675 ...	7	16 3 50.27	0.45	4	+6.832	162 43 18.02	0.45	3	+ 9.74
898	Lacaille 6698 ...	6.7	16 4 32.98	0.46	3	+5.916	157 36 59.35	0.46	3	+ 9.68
899	Lacaille 6681 ...	7	16 5 0.07	0.48	3	+7.159	163 59 21.92	0.48	3	+ 9.65
900	Lacaille 6714 ...	7	16 7 34.42	0.51	3	+6.611	161 33 41.42	0.51	3	+ 9.45
901	δ Ophiuchi ...	3	16 7 44.61	0.56	12	+3.136	93 22 6.77	0.97	1	+ 9.56
902	Lacaille 6723.....	7	16 7 46.87	0.47	3	+6.026	158 13 24.97	0.47	3	+ 9.44
903	Lacaille 6749.....	6.7	16 10 35.46	0.45	3	+5.815	156 34 52.93	0.45	3	+ 9.22
904	Lacaille 6737	7.6	16 10 40.71	0.48	3	+6.308	159 50 23.01	0.48	3	+ 9.21
905	Lacaille 6769.....	7.6	16 14 20.34	0.46	3	+6.197	159 1 51.97	0.46	3	+ 8.92

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906	Lacaille 6768 ...	7	16 14 31.99	0.50	3	+6.289	159 34 4.55	0.50	3	+ 8.91
907	Lacaille 6771 ...	5.6	16 14 56.40	0.47	3	+6.331	159 47 46.34	0.47	3	+ 8.88
908	Lacaille 6775 ...	7	16 15 24.02	0.50	3	+6.526	160 49 58.42	0.50	3	+ 8.84
909	Lacaille 6773 ...	7	16 18 50.83	0.63	1	+8.334	167 4 6.11	0.63	1	+ 8.58
910	Lacaille 6809 ...	5.6	16 20 26.76	0.43	3	+6.538	160 42 41.69	0.43	3	+ 8.44
911	Lacaille 6814 ...	6.7	16 21 31.56	0.47	3	+6.732	161 37 14.46	0.47	3	+ 8.35
912	α Scorpii	1.2	16 21 40.98	0.51	23	+3.668	116 9 0.19	0.93	5	+ 8.37
913	Lacaille 6844 ...	6	16 23 37.88	0.48	3	+5.717	155 13 30.01	0.48	3	+ 8.19
914	Lacaille 6846 ...	7	16 24 0.81	0.51	4	+5.914	156 44 11.04	0.51	3	+ 8.16
915	Lacaille 6847 ...	7.6	16 26 13.23	0.45	3	+6.858	162 2 30.87	0.45	3	+ 7.98
916	Lacaille 6865 ...	6	16 28 24.48	0.49	3	+6.127	158 2 27.44	0.49	3	+ 7.80
917	Lacaille 6861 ...	7	16 28 50.65	0.47	3	+6.520	160 19 38.61	0.47	3	+ 7.77
918	*	7.8	16 29 28.11	0.56	2	+6.013	157 14 1.12	0.56	2	+ 7.72
919	Lacaille 6881 ...	6	16 30 37.82	0.53	3	+6.011	157 10 57.95	0.53	3	+ 7.63
920	Lacaille 6877 ...	7	16 31 1.12	0.52	3	+6.792	161 35 48.21	0.52	3	+ 7.59
921	Lacaille 6892 ...	7	16 33 5.17	0.45	3	+6.071	157 30 29.65	0.45	3	+ 7.43
922	Lacaille 6900 ...	6.7	16 33 56.28	0.49	3	+6.130	157 51 51.86	0.49	3	+ 7.36
923	Lacaille 6906 ...	6.5	16 34 0.25	0.54	3	+5.984	156 52 11.97	0.54	3	+ 7.35
924	Lacaille 6911 ...	2.3	16 35 20.51	0.57	4	+6.285	158 47 31.52	0.57	4	+ 7.24
925	Lacaille 6901 ...	6.7	16 36 17.04	0.52	3	+7.287	163 29 37.13	0.52	3	+ 7.16
926	ζ Herculis.	3.2	16 36 32.21	0.46	2	+2.263				
927	Lacaille 6947 ...	6.7	16 39 24.94	0.47	4	+6.096	157 27 23.84	0.47	4	+ 6.91
928	Lacaille 6954 ...	7.6	16 39 40.10	0.49	3	+5.784	155 9 6.46	0.49	3	+ 6.89
929	Lacaille 6945 ...	7	16 40 1.75	0.52	3	+6.515	159 57 2.37	0.52	3	+ 6.86
930	Lacaille 6961 ...	6.7	16 42 47.43	0.54	3	+6.716	160 53 56.64	0.54	3	+ 6.63
931	Lacaille 6828 ...	7	16 43 37.77	0.64	1	+12.199	172 7 35.84	0.64	1	+ 6.57
932	Lacaille 6969 ...	7	16 44 29.83	0.48	3	+7.267	163 13 2.64	0.48	3	+ 6.49
933	Lacaille 6998 ...	6.7	16 46 1.53	0.52	3	+5.790	154 59 52.70	0.52	3	+ 6.36
934	Lacaille 6989 ...	5.6	16 46 3.30	0.49	3	+6.386	159 3 54.53	0.49	3	+ 6.36
935	Lacaille { 6988 6990 }	6.7	16 47 27.21	0.46	3	+7.080	162 24 41.81	0.46	3	+ 6.24
936	Lacaille 7039 ...	7.6	16 51 21.11	0.48	3	+6.248	158 5 26.06	0.48	3	+ 5.92
937	α Ophiuchi	3.4	16 51 42.29	0.56	14	+2.834				
938	Lacaille 7071 ...	7	16 54 59.90	0.49	3	+5.897	155 34 4.18	0.49	3	+ 5.61
939	Lacaille 7069 ...	6.7	16 55 43.48	0.51	3	+6.362	158 40 16.97	0.51	3	+ 5.55
940	Lacaille 7061 ...	7	16 55 48.27	0.54	3	+7.193	162 40 46.57	0.54	3	+ 5.54

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			h m s			s	° ' "			"
941	Lacaille 7079 ...	7.6	16 58 5.85	0.48	3	+6.721	160 33 8.19	0.48	3	+ 5.35
942	Lacaille 7103 ...	7	16 59 41.21	0.55	3	+6.033	156 26 42.42	0.55	3	+ 5.22
943	Lacaille 7081 ...	6.7	17 0 19.03	0.51	3	+7.692	164 22 28.70	0.51	3	+ 5.16
944	Lacaille 7107 ...	6	17 0 26.04	0.57	3	+6.121	157 1 56.71	0.57	3	+ 5.15
945	Lacaille 7094 ...	7	17 1 10.32	0.48	3	+7.149	162 24 0.90	0.48	3	+ 5.09
946	*	7.8	17 1 19.76	0.55	3	+5.914	155 31 40.30	0.55	3	+ 5.08
947	Lacaille 7122 ...	6.7	17 1 33.39	0.55	3	+5.951	155 48 5.17	0.55	3	+ 5.06
948	Lacaille 7104 ...	7	17 3 24.70	0.55	3	+7.734	164 27 27.26	0.55	3	+ 4.90
949	Lacaille 7142 ...	7	17 4 33.31	0.49	3	+6.100	156 47 50.77	0.49	3	+ 4.81
950	Lacaille 7146 ...	6	17 6 14.36	0.53	4	+6.625	159 53 46.61	0.52	3	+ 4.66
951	Lacaille 7156 ...	6	17 8 3.59	0.55	3	+6.648	159 59 10.01	0.55	2	+ 4.51
952	Lacaille 7157 ...	7	17 8 22.24	0.51	3	+6.713	160 18 17.77	0.51	3	+ 4.48
953	Lacaille 7162 ...	5	17 8 50.00	0.48	3	+6.240	157 38 4.88	0.48	3	+ 4.44
954	α Herculis	Var.	17 8 54.14	0.50	3	+2.731				
955	Lacaille 7185 ...	6	17 11 24.74	0.51	3	+5.949	155 34 21.98	0.51	3	+ 4.22
956	Lacaille 7197 ...	7	17 12 42.71	0.49	3	+6.047	156 15 47.07	0.49	3	+ 4.11
957	θ Ophiuchi	3.4	17 14 16.30	0.55	8	+3.677				
958	Lacaille 7198 ...	7	17 14 33.34	0.48	3	+6.777	160 30 57.00	0.48	3	+ 3.95
959	Lacaille 7240 ...	7	17 21 39.34	0.47	3	+7.931	164 49 11.23	0.47	3	+ 3.34
960	Lacaille 7078 ...	7.6	17 21 55.12	0.63	1	+18.622	175 9 13.94	0.63	1	+ 3.32
961	Lacaille 7290 ...	7	17 23 35.80	0.49	3	+6.023	155 54 17.73	0.49	3	+ 3.17
962	Lacaille 7285 ...	7	17 24 41.80	0.52	3	+6.826	160 36 30.94	0.52	3	+ 3.07
963	Lacaille 7292 ...	7	17 26 39.98	0.54	3	+7.486	163 18 49.74	0.54	3	+ 2.90
964	Lacaille 7316 ...	6.7	17 27 27.77	0.49	3	+6.311	157 46 27.54	0.49	3	+ 2.83
965	α Ophiuchi	2	17 29 5.20	0.39	10	+2.779				
966	Lacaille 7317 ...	6	17 29 10.75	0.54	3	+7.188	162 9 12.98	0.54	3	+ 2.68
967	Lacaille 7355 ...	7	17 34 30.37	0.51	3	+6.940	161 2 21.75	0.51	3	+ 2.23
968	Lacaille 7359 ...	7	17 34 32.22	0.52	3	+6.698	159 52 26.44	0.52	3	+ 2.22
969	β Ophiuchi	3	17 37 14.93	0.55	1	+2.964				
970	Lacaille 7416 ...	6.7	17 40 43.01	0.52	3	+5.988	155 26 46.77	0.52	3	+ 1.68
971	Lacaille 7401 ...	7	17 41 8.80	0.55	3	+7.241	162 16 33.39	0.55	3	+ 1.65
972	μ Herculis	3.4	17 41 31.60	0.62	11	+2.344				
973	Lacaille 7415 ...	7.6	17 42 40.13	0.57	3	+6.957	161 3 34.41	0.57	3	+ 1.52
974	Lacaille 7432 ...	6	17 43 42.81	0.58	3	+6.023	155 40 48.87	0.58	3	+ 1.42
975	Lacaille 7457 ...	7	17 49 13.48	0.52	3	+7.424	162 56 29.58	0.52	3	+ 0.94

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			h m s			s	° ' "			"
976	Lacaille 7456 ...	7.6	17 49 50.23	0.54	4	+7.730	163 59 54.21	0.54	3	+ 0.89
977	Lacaille 7481 ...	6.7	17 50 38.32	0.56	3	+6.148	156 31 42.93	0.56	3	+ 0.82
978	Lacaille 7500 ...	7	17 54 59.89	0.54	3	+7.102	161 39 5.36	0.54	3	+ 0.44
979	Lacaille 7507....	6	17 56 33.89	0.56	3	+7.637	163 40 39.78	0.56	3	+ 0.30
980	Lacaille 7532 ...	6	17 59 54.70	0.53	3	+6.905	160 46 21.32	0.53	3	+ 0.01
981	72 Ophiuchi	3.4	18 1 22.52	0.59	1	+2.847				
982	Lacaille 7574 ...	6	18 4 32.06	0.56	3	+6.424	158 15 47.16	0.56	3	- 0.40
983	Lacaille 7572 ...	7	18 4 46.95	0.53	3	+6.672	159 38 3.46	0.53	3	- 0.41
984	μ Sagittarii	4	18 6 13.67	0.60	12	+3.584				
985	Lacaille 7628 ...	7	18 12 30.30	0.53	3	+6.656	159 34 5.60	0.53	3	- 1.10
986	Lacaille 7636 ...	7	18 13 9.88	0.55	3	+6.631	159 26 30.22	0.55	3	- 1.15
987	σ Octantis	6	18 13 36.53	0.23	5	+109.022	179 16 39.58	0.65	34	- 1.19
	σ Octantis S.P.				5		39.64	0.17	24	
988	*	7	18 14 15.40	0.57	3	+6.619	159 22 44.75	0.57	3	- 1.25
989	Lacaille 7642 ...	6.7	18 16 43.97	0.57	3	+7.735	164 2 17.27	0.57	3	- 1.47
990	Lacaille 7666 ...	6.7	18 18 51.03	0.53	3	+7.137	161 50 58.90	0.53	3	- 1.65
991	Lacaille 7678 ...	7	18 20 20.34	0.56	3	+7.031	161 24 22.76	0.56	3	- 1.78
992	Lacaille 7679 ...	7	18 21 15.00	0.59	3	+7.395	162 52 42.76	0.59	3	- 1.86
993	Lacaille 7697 ...	6	18 21 26.05	0.58	3	+6.115	156 21 50.11	0.58	3	- 1.88
994	Lacaille 7706 ...	7	18 24 29.34	0.53	3	+6.792	160 19 53.14	0.53	3	- 2.14
995	Lacaille 7707 . .	7.6	18 24 41.84	0.57	4	+6.912	160 54 1.25	0.57	3	- 2.16
996	Lacaille 7740 ...	6.7	18 28 16.66	0.55	3	+6.801	160 24 37.64	0.55	3	- 2.47
997	Lacaille 7736 ...	4	18 28 18.02	0.58	3	+7.045	161 31 52.93	0.58	3	- 2.47
998	Lacaille 7749 ...	7	18 28 50.74	0.53	3	+6.619	159 29 46.45	0.53	3	- 2.52
999	Lacaille 7752 ...	6.7	18 30 51.38	0.58	3	+7.387	162 55 43.16	0.58	3	- 2.70
1000	α Lyrae	1	18 32 40.27	0.65	8	+2.030	51 19 57.79	0.76	3	- 3.13
1001	Lacaille 7785 ...	5	18 33 4.30	0.57	3	+5.908	154 59 8.08	0.57	3	- 2.89
1002	Lacaille 7771 ...	6.5	18 34 12.56	0.59	3	+7.431	163 7 23.35	0.59	3	- 2.99
1003	Lacaille 7796 ...	6.7	18 34 24.11	0.57	3	+5.956	155 22 24.95	0.57	3	- 3.00
1004	2 Aquilæ	5	18 35 22.44	0.73	1	+3.286				
1005	Lacaille 7813 ...	6.5	18 36 14.22	0.55	3	+5.930	155 12 14.45	0.55	3	- 3.16
1006	Lacaille 7789 ...	7.6	18 37 21.63	0.59	3	+7.604	163 46 1.53	0.59	3	- 3.26
1007	Lacaille 7856 ...	5	18 43 56.75	0.54	3	+6.223	157 23 13.99	0.54	3	- 3.83
1008	Lacaille 7864 ...	7	18 44 31.85	0.57	3	+6.087	156 29 5.37	0.57	3	- 3.88
1009	Lacaille 7848 ...	7	18 45 5.49	0.59	3	+7.130	162 5 29.09	0.59	3	- 3.93
1010	Lacaille 7851 ...	7	18 45 17.49	0.62	3	+7.035	161 41 37.47	0.62	3	- 3.94

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			h m s			s	° ' "			"
1011	Lacaille 7857 ...	7.6	18 45 17.83	0.60	3	+6.800	160 37 24.43	0.60	3	- 3.94
1012	β ¹ Lyræ	Var.	18 45 25.54	0.55	1	+2.212				
1013	Lacaille 7880 ...	6.5	18 47 15.08	0.60	3	+6.128	156 48 53.78	0.60	3	- 4.11
1014	Lacaille 7897 ...	6.5	18 50 0.85	0.54	3	+6.460	158 55 37.90	0.54	3	- 4.35
1015	ε Aquilæ	4	18 53 54.24	0.59	1	+2.726				
1016	Lacaille 7928 ...	6	18 55 32.59	0.56	3	+7.006	161 44 19.83	0.56	3	- 4.82
1017	Lacaille 7944 ...	5	18 56 30.16	0.58	3	+6.383	158 36 49.78	0.58	3	- 4.90
1018	Lacaille 7964 ...	7.6	18 58 54.60	0.55	3	+5.987	156 4 24.72	0.55	3	- 5.10
1019	ζ Aquilæ	3	18 59 37.11	0.63	12	+2.752				
1020	Lacaille 7969 ...	7	19 1 13.90	0.58	3	+6.210	157 39 25.24	0.58	3	- 5.29
1021	Lacaille 7986 ...	6	19 2 56.18	0.58	3	+6.496	159 23 59.85	0.58	3	- 5.44
1022	Lacaille 7997 ...	6	19 4 31.00	0.61	3	+6.080	156 52 27.62	0.61	3	- 5.58
1023	Lacaille 8004 ...	6	19 4 43.97	0.60	4	+5.882	155 26 25.84	0.60	4	- 5.59
1024	Lacaille 8001 ...	7	19 6 28.75	0.55	3	+6.611	160 5 49.05	0.55	3	- 5.74
1025	*	7.8	19 6 53.38	0.55	2	+6.608	160 5 28.22	0.55	2	- 5.77
1026	ψ Sagittarii	6	19 7 48.71	0.64	1	+3.681				
1027	Lacaille 8034 ...	6	19 10 55.52	0.57	3	+6.322	158 36 13.99	0.57	3	- 6.11
1028	Lacaille 8042 ...	7	19 11 3.93	0.60	4	+5.906	155 48 37.46	0.60	4	- 6.12
1029	ω Aquilæ	6.5	19 11 54.14	0.61	10	+2.814				
1030	Lacaille 8036 ...	7.6	19 11 56.38	0.62	3	+6.918	161 42 9.24	0.62	3	- 6.19
1031	Lacaille 8020 S.P.	7	19 11 57.72	0.20	1	+7.960	165 24 48.50	0.20	1	- 6.20
1032	*	7	19 12 21.28	0.62	3	+6.916	161 42 16.56	0.62	3	- 6.23
1033	Lacaille 8031 ...	6.7	19 12 59.67	0.63	3	+7.312	163 19 47.15	0.63	3	- 6.29
1034	Lacaille 8056 ...	7.6	19 14 32.20	0.61	3	+6.530	159 52 42.51	0.61	3	- 6.41
1035	*	7	19 15 20.04	0.59	4	+7.554	164 14 1.63	0.59	4	- 6.48
1036	Lacaille 8046 ...	8.7	19 15 26.45	0.64	3	+7.496	164 2 8.88	0.64	3	- 6.48
1037	Lacaille 8048 ...	7	19 15 33.22	0.65	4	+7.498	164 2 49.44	0.64	3	- 6.49
1038	Lacaille 8059 ...	7	19 17 26.67	0.59	3	+7.400	163 45 4.87	0.59	3	- 6.66
1039	Lacaille 8078 ...	6	19 18 3.25	0.57	3	+6.302	158 41 12.48	0.57	3	- 6.69
1040	δ Aquilæ	3.4	19 19 8.67	0.60	11	+3.023				
1041	Lacaille 8096 ...	7	19 21 58.84	0.57	3	+6.395	159 21 6.58	0.57	3	- 7.03
1042	α Vulpeculæ	4.5	19 23 27.73	0.65	2	+2.505	65 35 19.14	0.76	1	- 7.14
1043	Lacaille 8114 ...	7.6	19 26 2.86	0.59	3	+6.419	159 36 52.03	0.59	3	- 7.35
1044	Lacaille 8113 ...	7	19 26 8.12	0.61	4	+6.466	159 52 42.99	0.61	4	- 7.36
1045	Lacaille 8119 ...	6.7	19 26 13.13	0.63	3	+5.890	156 11 22.61	0.63	3	- 7.37

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			h m s			s	° ' "			"
1081	θ Aquilæ	3	20 4 48.23	0.57	1	+3.096				
1082	Lacaille 8353 ...	6	20 4 57.00	0.62	3	+5.878	157 49 56.71	0.62	3	-10.40
1083	Lacaille 8342 ...	7.8	20 6 31.10	0.65	3	+7.139	164 21 51.03	0.65	3	-10.52
1084	Lacaille 8371 ...	7.6	20 9 28.35	0.59	4	+5.826	157 42 16.40	0.59	4	-10.74
1085	Lacaille 8374 ...	6	20 9 35.32	0.62	3	+5.750	157 8 28.40	0.62	3	-10.75
1086	α ² Capricorni ...	3.4	20 11 3.70	0.62	4	+3.331	102 56 3.32	0.76	1	-10.86
1087	Lacaille 8372 ...	7	20 11 12.23	0.67	3	+6.542	162 3 21.18	0.67	3	-10.87
1088	Lacaille 8375 ...	7	20 12 48.67	0.62	3	+7.156	164 41 15.76	0.62	3	-10.99
1089	Lacaille 8412 ...	7.6	20 17 49.93	0.59	3	+6.016	159 28 49.05	0.59	3	-11.35
1090	Lacaille 8411 ...	7	20 18 48.43	0.61	3	+6.511	162 16 45.58	0.61	3	-11.42
1091	ρ Capricorni	5	20 21 40.28	0.70	19	+3.425	108 13 42.11	0.78	2	-11.62
1092	Lacaille 8424 ...	6	20 22 1.18	0.61	5	+6.345	161 36 45.97	0.61	4	-11.65
1093	Lacaille 8431 ...	7.6	20 23 5.89	0.59	3	+6.349	161 41 13.05	0.58	2	-11.72
1094	Lacaille 8437 ...	6	20 23 19.48	0.61	3	+6.055	160 2 7.18	0.61	3	-11.74
1095	Lacaille 8436 ...	6.7	20 23 34.23	0.69	4	+6.309	161 29 52.94	0.69	4	-11.76
1096	Lacaille 8445 ...	7.6	20 24 22.09	0.66	3	+6.020	159 52 42.91	0.66	3	-11.82
1097	Lacaille 8462 ...	6.7	20 25 55.06	0.63	3	+5.427	155 27 49.86	0.63	3	-11.92
1098	*	6.7	20 25 57.50	0.66	4	+6.288	161 31 38.76	0.66	4	-11.92
1099	*	8.7	20 28 5.75	0.74	3	+6.068	160 23 24.23	0.74	3	-12.07
1100	Lacaille 8468 ...	7	20 29 13.47	0.61	3	+6.226	161 22 13.02	0.61	3	-12.15
1101	Lacaille 8469 ...	6.7	20 29 41.84	0.68	3	+6.413	162 22 13.50	0.68	3	-12.19
1102	Lacaille 8488 ...	5	20 30 21.70	0.64	3	+5.592	157 12 6.21	0.64	3	-12.23
1103	*	8	20 30 43.01	0.75	1	+6.042	160 23 19.15	0.75	1	-12.24
1104	Lacaille 8467 ...	7.8	20 31 46.31	0.72	3	+6.017	160 18 4.77	0.72	3	-12.33
1105	Lacaille 8500 ...	3.4	20 33 34.78	0.60	3	+5.499	156 39 11.38	0.60	3	-12.45
1106	Lacaille 8502 ...	7	20 35 36.10	0.72	5	+6.406	162 40 5.49	0.70	4	-12.59
1107	Lacaille 8514 ...	6.7	20 35 40.20	0.62	3	+5.339	155 21 39.58	0.62	3	-12.60
1108	Lacaille 8501 ...	7.6	20 35 40.95	0.67	3	+6.472	162 59 19.43	0.67	3	-12.60
1109	Lacaille 8519 ...	7	20 36 55.54	0.68	3	+5.805	159 14 48.21	0.68	3	-12.68
1110	Lacaille 8521 ...	5.6	20 37 20.26	0.67	4	+5.799	159 14 1.44	0.67	4	-12.71
1111	Lacaille 8510 ...	7	20 37 51.89	0.61	3	+6.707	164 9 8.32	0.61	3	-12.75
1112	ε Aquarii	4.3	20 40 51.23	0.67	2	+3.251				
1113	Lacaille 8578 ...	7	20 46 2.90	0.61	3	+5.666	158 54 8.94	0.61	3	-13.29
1114	Lacaille 8577 ...	6.7	20 46 16.93	0.63	3	+5.765	159 37 28.01	0.63	3	-13.30
1115	Lacaille 8573 ...	7	20 46 22.54	0.66	3	+5.959	160 54 9.44	0.66	4	-13.31

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			h m s			s	° ' "			"
1116	*	7	20 46 23.70				160 54 13.17	0.67	1	-13.31
1117	Lacaille 8588	6	20 47 55.09	0.69	3	+5.810	160 3 9.44	0.69	3	-13.41
1118	32 Vulpeculæ.....	5.6	20 49 11.36	0.59	7	+2.554	62 25 15.21	0.75	1	-13.50
1119	Lacaille 8611.....	6	20 49 53.78	0.53	3	+5.600	158 41 48.22	0.63	3	-13.55
1120	Lacaille 8627.....	7.6	20 54 54.68	0.62	3	+5.607	159 8 36.68	0.62	3	-13.86
1121	Lacaille 8623.....	7	20 55 42.95	0.69	4	+6.406	163 53 46.15	0.69	4	-13.91
1122	Lacaille 8625.....	6	20 56 7.22	0.65	3	+6.350	163 39 48.91	0.65	3	-13.95
1123	Lacaille 8637.....	6	20 58 36.58	0.72	4	+6.193	163 3 2.06	0.72	4	-14.09
1124	*	7	21 0 26.12	0.62	2	+5.761	160 40 14.60	0.62	2	-14.21
1125	61 ¹ Cygni	5.6	21 1 14.84	0.34	1	+2.673				
1126	Lacaille 8668....	5	21 1 29.00	0.62	3	+5.744	160 38 15.95	0.62	3	-14.27
1127	B Octantis	6.7	21 2 12.68	0.28	2	+96.878	179 25 42.67	0.48	3	-14.32
	B Octantis S.P.				6		41.99	0.27	8	
1128	Lacaille 8673	7	21 2 13.23	0.65	3	+5.849	161 22 9.77	0.65	3	-14.32
1129	Lacaille 8696	7	21 6 29.50	0.69	3	+6.236	163 49 15.07	0.69	3	-14.58
1130	Lacaille 8721.....	5.6	21 7 32.70	0.71	4	+5.050	155 12 12.58	0.71	4	-14.64
1131	ζ Cygni	3	21 7 34.36	0.76	2	+2.548				
1132	Lacaille 8710.....	7.8	21 8 53.43	0.72	3	+6.320	164 22 59.90	0.72	3	-14.72
1133	Lacaille 8729.....	6	21 10 12.66	0.66	4	+5.865	162 6 4.01	0.66	4	-14.80
1134	Lacaille 8745.....	6	21 12 49.43	0.66	3	+5.556	160 16 6.80	0.66	3	-14.95
1135	Lacaille 8746.....	6.7	21 13 5.11	0.77	3	+6.007	163 7 48.96	0.77	3	-14.96
1136	Lacaille 8744.....	6.5	21 13 14.49	0.72	3	+5.864	162 20 7.94	0.72	3	-14.97
1137	Lacaille 8757.....	6	21 13 33.82	0.73	3	+5.357	158 46 11.16	0.73	3	-14.99
1138	Lacaille 8778.....	4.3	21 15 59.84	0.69	4	+5.036	155 56 2.90	0.69	4	-15.14
1139	33 Capricorni	5.6	21 17 0.67	0.80	1	+3.414	111 23 11.01	0.80	1	-15.19
1140	Lacaille 8782.....	5	21 17 26.44	0.67	3	+5.471	160 2 50.90	0.67	3	-15.22
1141	*	7.8	21 18 12.64	0.68	1	+6.310	165 0 21.43	0.68	1	-15.26
1142	Lacaille 8786.....	7.6	21 19 53.16	0.67	3	+6.160	164 26 30.94	0.67	3	-15.35
1143	Lacaille 8806....	7	21 21 31.34	0.72	3	+5.419	160 2 26.45	0.72	3	-15.45
1144	β Aquarii.....	3	21 24 55.43	0.68	23	+3.161	96 7 27.38	0.76	3	-15.64
1145	Lacaille 8842.....	6	21 27 57.66	0.66	4	+4.871	155 23 10.40	0.66	3	-15.80
1146	Lacaille 8828.....	7.6	21 28 9.66	0.72	3	+6.066	164 38 47.82	0.72	3	-15.81
1147	Lacaille 8835.....	7	21 28 42.86	0.74	3	+5.604	162 3 58.70	0.74	3	-15.84
1148	Lacaille 8845.....	7.6	21 29 43.54	0.76	4	+5.490	161 22 22.55	0.76	4	-15.89
1149	ε Capricorni	5.4	21 30 1.50	0.80	1	+3.369	110 4 44.12	0.80	1	-15.91
1150	Lacaille 8860.....	6	21 34 15.45	0.68	3	+5.456	161 34 59.14	0.68	3	-16.13

No.	Star's Name.	Magnitude.	Mean R.A. 1874, Jan. 1.	Fraction of Year for Mean.	No. of Obs. of R.A.	Precess. or Ann. Var. in R.A.	Mean N.P.D. 1874, Jan. 1.	Fraction of Year for Mean.	No. of Obs. of N.P.D.	Precess. or Ann. Var. in N.P.D.
			h m s			s	° ' "			"
1151	Lacaille 8869 ...	7	21 36 10.45	0.71	4	+5.680	163 15 35.90	0.71	4	-16.23
1152	ε Pegasi.....	2.3	21 37 59.80	0.73	7	+2.948	80 42 6.53	0.78	2	-16.33
1153	Lacaille 8894 ...	7.6	21 39 45.52	0.70	4	+5.541	162 43 25.98	0.72	3	-16.41
1154	Lacaille 8899 ...	5	21 40 5.09	0.73	3	+5.202	160 12 49.28	0.73	3	-16.43
1155	Lacaille 8903 ...	6.5	21 40 12.30	0.71	3	+4.736	155 17 41.19	0.71	3	-16.44
1156	Lacaille 8910 ...	7	21 43 11.60	0.76	3	+5.694	164 0 49.40	0.76	3	-16.58
1157	Brisbane 7088 ...	6	21 44 45.24	0.75	3	+5.197	160 42 22.55	0.75	3	-16.66
1158	Lacaille 8925 ...	6	21 44 52.67	0.72	3	+5.189	160 39 33.53	0.72	3	-16.67
1159	*	7	21 45 4.60	0.76	3	+5.244	161 7 43.54	0.76	3	-16.68
1160	16 Pegasi.....	5.6	21 47 19.72	0.75	4	+2.727	64 40 0.45	0.81	1	-16.78
1161	Lacaille 8970 ...	7.6	21 52 29.73	0.69	3	+4.646	155 50 26.61	0.69	3	-17.03
1162	Lacaille 8986 ...	7.6	21 55 9.81	0.71	4	+4.580	155 20 2.45	0.70	3	-17.15
1163	Lacaille 8988 ...	7	21 56 17.12	0.73	3	+4.895	159 21 0.91	0.73	3	-17.20
1164	Lacaille 8994 ...	5	21 57 29.83	0.75	3	+5.037	160 53 52.37	0.75	3	-17.26
1165	Lacaille 9002 ...	6	21 58 57.39	0.73	3	+5.087	161 31 4.67	0.73	3	-17.32
1166	α Aquarii.....	3	21 59 18.69	0.72	16	+3.080	90 55 51.99	0.77	3	-17.32
1167	Lacaille 9016 ...	6.7	22 0 43.88	0.69	3	+4.799	158 56 37.50	0.69	3	-17.40
1168	Lacaille 9035 ...	7.6	22 5 3.67	0.72	3	+4.968	161 16 26.63	0.72	3	-17.58
1169	C Octantis	6	22 6 50.09	0.38	4	+13.754	176 36 18.45	0.76	22	-17.66
	C Octantis S.P.				10		17.52 0.31		17	
1170	Lacaille 9062 ...	7.6	22 9 9.50	0.71	3	+4.685	158 56 4.98	0.71	3	-17.75
1171	θ Aquarii.....	4.5	22 10 10.96	0.72	7	+3.169	98 24 34.86	0.76	1	-17.77
1172	Lacaille 9079 ...	7	22 13 13.25	0.75	3	+5.088	163 26 14.64	0.75	3	-17.91
1173	*	7.6	22 13 17.68	0.75	3	+5.090	163 26 14.20	0.75	3	-17.92
1174	Lacaille 9082 ...	6.5	22 13 44.99	0.71	3	+5.010	162 51 59.16	0.71	3	-17.93
1175	Lacaille 9099 ...	5	22 15 16.84	0.72	3	+4.789	161 3 56.65	0.72	3	-17.99
1176	Lacaille 9114 ...	4.5	22 18 20.67	0.72	3	+4.337	155 36 22.03	0.72	3	-18.11
1177	Lacaille 9117 ...	6.5	22 19 18.96	0.74	3	+4.488	158 7 39.31	0.74	3	-18.15
1178	Lacaille 9134 ...	7	22 22 42.36	0.71	3	+4.564	159 45 9.36	0.71	3	-18.27
1179	56 Aquarii.....	6	22 23 32.14	0.80	1	+3.221	105 13 44.11	0.80	1	-18.31
1180	Lacaille 9143 ...	7	22 25 18.99	0.73	3	+4.849	163 12 12.99	0.73	3	-18.36
1181	Lacaille 9155 ...	6.7	22 26 23.27	0.76	3	+4.849	163 21 42.58	0.76	3	-18.40
1182	Lacaille 9158 ...	6	22 26 31.21	0.76	3	+4.667	161 36 49.44	0.76	3	-18.41
1183	η Aquarii	4.3	22 28 52.85	0.69	13	+3.082	90 45 58.94	0.82	2	-18.43
1184	Lacaille 9192 ...	7	22 33 7.69	0.71	4	+4.363	159 3 22.25	0.71	4	-18.62
1185	ζ Pegasi.....	3.4	22 35 10.65	0.78	9	+2.986	79 49 33.40	0.79	4	-18.70

No.	Star's Name.	Magnitude.	Mean R.A. 1874, Jan. 1.	Fraction of Year for Mean.	No. of Obs. of R.A.	Precess. or Ann. Var. in R.A.	Mean N.P.D. 1874, Jan. 1.	Fraction of Year for Mean.	No. of Obs. of N.P.D.	Precess. or Ann. Var. in N.P.D.
			h m s			s	° ' "			"
1186	Lacaille 9214 ...	7	22 36 52.70	0.74	3	+4.302	158 54 56.20	0.74	3	-18.74
1187	*	7	22 37 53.17	0.73	3	+4.373	160 11 21.26	0.73	3	-18.78
1188	Lacaille 9220.....	6.7	22 38 34.65	0.73	4	+4.359	160 8 17.01	0.73	3	-18.80
1189	Lacaille 9227.....	6.7	22 39 5.34	0.75	3	+4.122	156 13 22.59	0.75	3	-18.82
1190	Lacaille 9232.....	7.6	22 39 22.69	0.78	3	+4.456	161 35 49.22	0.78	3	-18.82
1191	Lacaille 9230.....	6.5	22 40 14.97	0.77	3	+4.397	161 0 48.19	0.77	3	-18.85
1192	γ Aquarii	4	22 42 54.98	0.80	1	+3.185	104 15 23.85	0.80	1	-18.94
1193	Lacaille 9262 ...	7	22 44 47.52	0.72	2	+4.745	165 32 2.02	0.72	2	-18.98
1194	Lacaille 9276 ...	6.5	22 45 51.60	0.74	3	+4.289	160 44 44.97	0.74	3	-19.01
1195	Lacaille 9279 ...	7	22 46 21.01	0.76	3	+4.218	159 46 23.51	0.76	3	-19.03
1196	74 Aquarii	6	22 46 50.44	0.88	1	+3.165	102 17 8.51	0.88	1	-19.04
1197	Lacaille 9291.....	7	22 47 50.96	0.77	3	+4.176	159 27 18.79	0.77	3	-19.07
1198	Lacaille 9293 ...	7	22 49 7.41	0.78	3	+4.533	164 27 2.07	0.78	3	-19.10
1199	α Piscis Australis	1.2	22 50 40.98	0.57	15	+3.327	120 17 21.83	0.76	1	-18.96
1200	β Piscium	5.4	22 56 27				86 51 28.94	0.86	1	-19.31
1201	Lacaille 9337.....	5.6	22 56 30.51	0.71	4	+4.049	159 30 3.67	0.71	4	-19.29
1202	α Pegasi	2	22 58 29.08	0.68	9	+2.983	75 28 20.17	0.78	3	-19.32
1203	Lacaille 9358 ...	6.5	22 59 46.69	0.73	3	+4.305	164 16 2.08	0.73	3	-19.37
1204	Lacaille 9374 ...	6.5	23 1 38.35	0.74	3	+3.931	158 33 23.62	0.74	3	-19.41
1205	Lacaille 9375 ...	6	23 2 6.75	0.76	3	+3.881	157 32 28.64	0.76	3	-19.42
1206	Lacaille 9390 ...	6	23 5 54.35	0.74	3	+3.967	160 44 46.83	0.74	3	-19.50
1207	γ Octantis S.P.	6	23 8 4.52	0.25	6	+12.488	178 10 21.89	0.25	9	-19.54
1208	Lacaille 9402 ...	7	23 8 31.22	0.74	3	+3.933	160 56 16.64	0.74	3	-19.55
1209	γ Tucanæ	4	23 10 3				148 56 33.51	0.85	1	-19.58
1210	Lacaille 9418.....	6.5	23 10 30.65	0.75	3	+3.786	158 9 34.28	0.75	3	-19.59
1211	γ Piscium	4	23 10 37.97	0.83	4	+3.106	87 24 21.10	0.80	2	-19.58
1212	ψ ² Aquarii.....	5.4	23 11 21.10	0.88	1	+3.122	99 52 12.97	0.88	1	-19.61
1213	Lacaille 9450.....	7.6	23 16 19.90	0.72	3	+3.891	162 51 18.26	0.72	3	-19.69
1214	Lacaille 9459.....	7	23 18 50.79	0.75	4	+3.933	164 31 46.60	0.75	3	-19.73
1215	Lacaille 9469.....	6	23 19 37.76	0.73	3	+3.632	157 16 23.65	0.73	3	-19.74
1216	α Piscium	5.4	23 20 28.40	0.82	5	+3.075	89 26 1.81	0.83	2	-19.64
1217	Lacaille 9487.....	7	23 23 10.39	0.79	7	+3.859	164 49 47.60	0.80	6	-19.79
1218	Lacaille 9492.....	6.7	23 23 27.25	0.77	4	+3.649	159 46 1.67	0.79	3	-19.80
1219	Lacaille 9493.....	7.6	23 24 30.73	0.77	7	+3.834	164 53 44.64	0.77	7	-19.81
1220	Lacaille 9505.....	7	23 26 5.92	0.77	4	+3.780	164 25 54.30	0.78	3	-19.83

No.	Star's Name.	Magnitude.	Mean R.A. 1874, Jan. 1.	Fraction of Year for Mean.	No. of Obs. of R.A.	Precess. or Ann. Var. in R.A.	Mean N.P.D. 1874, Jan. 1.	Fraction of Year for Mean.	No. of Obs. of N.P.D.	Precess. or Ann. Var. in N.P.D.
			h m s			s	° ' "			"
1221	Lacaille 9511.....	7.6	23 27 2.41	0.80	3	+3.650	161 39 43.46	0.80	3	-19.85
1222	Lacaille 9518.....	6.5	23 28 0.27	0.76	3	+3.479	155 23 10.38	0.76	3	-19.86
1223	Lacaille 9531.....	7.6	23 30 47.65	0.75	3	+3.581	161 36 6.06	0.75	3	-19.89
1224	Lacaille 9537	6	23 32 7.85	0.77	3	+3.614	163 23 39.60	0.77	3	-19.91
1225	♈ Piscium.....	4.5	23 33 28.19	0.81	6	+3.084	85 3 23.67	0.85	3	-19.47
1226	Lacaille 9562 ...	7	23 36 4.32	0.76	3	+3.489	161 31 8.71	0.76	3	19.94
1227	Lacaille 9558.....	7	23 36 8.66	0.78	3	+3.586	164 54 52.94	0.78	3	-19.95
1228	Lacaille 9566 ...	5.6	23 37 11.38	0.81	3	+3.461	161 11 29.90	0.81	3	-19.95
1229	Lacaille 9571 ...	6	23 37 14.40	0.78	6	+3.358	155 6 17.75	0.78	6	19.96
1230	Lacaille 9572 ...	6.7	23 37 19.92	0.79	3	+3.356	155 2 20.29	0.78	2	19.96
1231	Lacaille 9580 ...	7	23 39 22.63	0.84	3	+3.436	161 46 24.95	0.84	3	19.97
1232	Lacaille 9581 ...	7	23 39 55.37	0.83	3	+3.475	163 47 57.72	0.83	3	19.98
1233	Lacaille 9584 ...	6.7	23 40 18.67	0.78	3	+3.424	162 0 18.91	0.78	3	-19.98
1234	Lacaille 9588 ...	7.6	23 40 24.55	0.82	3	+3.372	159 5 34.69	0.82	3	-19.98
1235	Lacaille 9592...	6	23 41 3.73	0.78	3	+3.336	157 16 6.25	0.78	3	-19.99
1236	♄ Sculptoris.....	4.5	23 42 21.46	0.82	3	+3.138				
1237	Lacaille 9608 ...	7	23 43 39.56	0.76	3	+3.330	159 47 30.23	0.76	3	-20.00
1238	Lacaille 9627 ...	7	23 45 55.06	0.75	3	+3.342	163 6 2.64	0.75	3	20.02
1239	♈ Piscium	6.7	23 46 27.25	0.88	1	+3.078	93 51 17.04	0.88	1	-20.04
1240	Lacaille 9661 ...	5	23 50 57.30	0.76	3	+3.186	154 59 51.69	0.76	3	-20.04
1241	♈ Piscium	5.6	23 52 14				94 15 18.18	0.87	3	-20.04
1242	♈ Piscium.....	4	23 52 50.48	0.79	14	+3.078	83 50 2.46	0.81	3	-19.91
1243	Lacaille 9678 ...	4	23 53 21.17	0.75	3	+3.161	156 16 40.60	0.75	3	-20.05
1244	♈ Piscium	5.6	23 55 21.92	0.85	2	+3.074	93 43 43.39	0.85	2	-20.05
1245	Lacaille 9708 ...	7.6	23 58 5.94	0.76	3	+3.109	163 35 51.87	0.76	3	-20.05
1246	Lacaille 9710 ...	5.6	23 58 16.45	0.75	3	+3.103	162 8 17.03	0.75	3	-20.05

**ROYAL OBSERVATORY,
CAPE OF GOOD HOPE.**

RIGHT ASCENSIONS AND NORTH POLAR DISTANCES

OF THE

**MOON, VENUS, AND COMET III,
OBSERVED IN 1874.**

Day, 1874.	Object.	Observer.	Observed R.A. of Star and Moon's Limb on true Meridian.	Limb Observed. No. of Wires.	Day.	Object.	Observer.	Observed R.A. of Star and Moon's Limb on true Meridian.	Limb Observed. No. of Wires.
Oct. 19	Moon.....	I	h m s 20 57 21.08	1 7		♈ Piscium.....	G	1 38 47.75	7
	33 Capricorni	I	21 17 3.48	7	Nov. 21	Moon.....	F	2 1 38.67	1 6
	ε Capricorni..	I	21 30 4.34	7		π Arietis.....	F	2 42 19.36	7
20	Moon.....	C	21 54 3.84	1 7		ρ ³ Arietis.....	F	2 48 47.47	7
	56 Aquarii....	C	22 23 35.11	7	22	Moon.....	F	3 1 52.39	1 7
	τ ³ Aquarii.....	C	22 42 58.00	7		τ ³ Arietis.....	F	3 15 34.16	6
22	Moon.....	F	23 43 47.58	1 7		33 Tauri.....	F	3 49 39.67	6
	29 Piscium...	F	23 55 24.99	7	23	Moon.....	I	4 6 23.94	1 7
	44 Piscium...	F	0 18 59.72	7		Moon.....	I	4 8 56.48	2 7
23	Moon.....	I	0 38 34.36	1 7		B.A.C. 1518.	I	4 48 39.34	7
	ε Piscium	I	0 56 27.45	7		ε Tauri.....	I	4 50 30.97	7
	ζ Piscium	I	1 7 12.14	7	Dec. 17	Moon.....	F	0 43 10.64	1 7
24	Moon.....	G	1 34 56.78	1 7		B.A.C. 274...	F	0 53 20.89	6
	B.A.C. 609...	G	1 52 44.55	7		ζ Piscium.....	F	1 7 11.95	7
	29 Arietis....	G	2 26 3.47	7	21	Moon.....	I	4 38 26.81	1 7
26	Moon.....	F	3 39 13.37	2 7		B.A.C. 1648.	I	5 13 9.39	7
	36 Tauri.....	F	3 56 53.04	7		B.A.C. 1746.	I	5 28 5.85	7
	χ ¹ Tauri.....	F	4 14 58.46	7	22	Moon.....	F	5 46 38.82	1 7
Nov. 17	Moon.....	F	22 26 24.19	1 7		Moon.....	F	5 49 14.14	2 7
	74 Aquarii....	F	22 46 53.14	7		B.A.C. 2097.	F	6 22 29.75	5
	ψ ³ Aquarii....	F	23 11 23.89	7		49 Aurigæ ...	F	6 27 20.81	7
18	Moon.....	G	23 19 2.06	1 7	1875				
	24 Piscium...	G	23 46 30.12	7	Jan. 21	Moon.....	G	8 33 47.37	2 7
	29 Piscium...	G	23 55 24.84	7		ξ Cancræ.....	G	9 2 11.73	7
19	Moon.....	C	0 11 32.45	1 7		λ Leonis.....	G	9 24 36.57	7
	B.A.C. 221...	C	0 41 49.58	6	Feb. 15	Moon.....	I	5 59 24.96	1 7
	73 Piscium...	C	0 58 24.00	7		B.A.C. 2097.	I	6 22 29.87	7
20	Moon.....	G	1 5 16.32	1 7		49 Aurigæ ...	I	6 27 20.88	7

Right Ascension and N.P.D. of the Moon's Centre. 191

Cape Mean Solar Time of Transit of Centre.					Observer.	Observed R.A.			Observed N.P.D.		
1874.	d	h	m	s		h	m	s	°	'	"
Oct.	19	7	6	24.4	I	20	58	32.09	112	31	8.87
	20	7	59	0.9	C	21	55	13.77	107	38	15.78
	22	9	40	33.7	F	23	44	56.42	94	42	5.35
	23	10	31	16.2	I	0	39	43.78	87	21	54.12
	24	11	23	34.9	G	1	36	7.62	80	3	35.76
	26	13	17	13.7	F	3	37	58.27	67	45	26.55
Nov.	17	6	41	8.6	F	22	27	32.28	104	9	45.73
	18	7	29	41.5	G	23	20	9.65	97	50	50.33
	19	8	18	7.6	C	0	12	40.34	90	56	10.60
	20	9	7	48.0	G	1	6	25.44	83	47	25.83
	21	10	0	7.3	F	2	2	49.89	76	51	14.85
	22	10	56	17.8	F	3	3	6.22	70	39	17.24
	23	11	56	45.3	I	4	7	40.21			
Dec.	17	6	59	34.4	F	0	44	17.90	86	30	6.24
	21	10	38	37.7	I	4	39	43.40	64	3	40.00
	22	11	42	43.7	F	5	47	56.48			
1875											
Jan.	21	12	28	58.1	G	8	32	35.25	66	8	0.34
Feb.	15	8	19	10.8	I	6	0	40.79	61	42	6.91

Right Ascension and N.P.D. of the Centre of Venus.

Cape Mean Solar Time of Transit of Centre.					Observer.	Observed R.A.			Observed N.P.D.		
1874.	d	h	m	s		h	m	s	°	'	"
Nov.	10	2	12	5.7	F				117	59	43.49
	11	2	9	27.0	I	17	31	26.72	117	57	1.56
	12	2	6	38.9	F	17	32	34.75	117	53	45.85
	16	1	53	51.2	I	17	35	31.15	117	35	3.73
	17	1	50	14.5	F				117	28	51.38
	19	1	42	29.0	C	17	35	56.70	117	14	35.34
	20	1	38	19.3	G	17	35	42.90	117	6	32.73
	24	1	19	55.0	G				116	27	37.10
Dec.	2	0	35	14.8	F	17	19	46.79	114	36	45.27
	4	0	22	50.9	C				114	2	44.58
	20	22	39	22.2	G	16	38	29.67	109	1	5.98
	21	22	34	13.7	G	16	37	16.92	108	47	34.43
	22	22	29	14.9	G	16	36	13.85	108	34	53.72

192 *Right Ascension and N.P.D. of Comet, 1874, III. (Coggia).*

Day.	Cape Mean Time of Transit.	Object.	Observer.	Observed R.A.	No. of Wires in R.A.	Observed N.P.D.
	h m s			h m s		° ' "
Sept. 3	9 24 0.1	Comet S.P.	F	8 15 8.90	4	154 30 45.24
5	... ..	Lacaille 3225 S.P.	G	8 6 20.52	7	155 36 12.76
	9 16 11.7	Comet S.P.	G	8 15 12.39	2	155 19 1.14
6	9 12 14.0	Comet S.P.	F	8 15 10.55	3	155 42 5.47
	... ..	β Volantis S.P.	F	8 24 18.87	7	155 42 47.91
7	9 8 12.8	Comet S.P.	I	8 15 5.23	6	156 5 20.14
	... ..	β Volantis S.P.	I	8 24 18.87	7	155 42 44.98
9	... ..	Lacaille 3225 S.P.	G	8 6 20.52	7	155 36 10.05
	8 59 59.1	Comet S.P.	G	8 14 43.34	5	156 49 52.61
10	... ..	Lacaille 3242 S.P.	F	8 7 27.55	7	158 14 31.18
	8 55 44.3	Comet S.P.	F	8 14 24.40	4	157 11 43.61
14	... ..	Lacaille 3202 S.P.	F	8 3 37.96	7	158 34 16.38
	8 38 15.2	Comet S.P.	F	8 12 38.60	5	158 36 24.29
17	... ..	Lacaille 3203 S.P.	F	8 3 23.75	7	159 36 22.99
	8 24 19.4	Comet S.P.	F	8 10 30.16	5	159 37 6.24
19	... ..	Lacaille 3182 S.P.	G	8 1 37.72	6	159 40 0.28
	8 14 38.7	Comet S.P.	G	8 8 41.05	2	160 16 57.43
21	8 4 34.1	Comet S.P.	F	8 6 27.91	3	160 55 12.76
	... ..	Lacaille 3355 S.P.	F	8 20 6.68	7	161 6 31.98
23	7 54 6.5	Comet S.P.	C	8 3 51.65	1	161 33 16.28
	... ..	Lacaille 3268 S.P.	C	8 9 32.34	1	161 20 31.56
28	... ..	Lacaille 3085 S.P.	I	7 47 19.75	7	161 24 2.90
	7 25 55.4	Comet S.P.	I	7 55 18.74	5	163 2 30.62
29	7 19 53.7	Comet S.P.	C	7 53 12.60	6	163 19 54.70
	... ..	Lacaille 3188 S.P.	C	8 0 44.75	6	162 53 12.63
October 1	... ..	Lacaille 3010 S.P.	F	7 37 52.60	7	.. ..
	7 7 25.5	Comet S.P.	F	7 48 35.44	1	163 53 56.82

Sept. 23.—The Comet and Lacaille 3268 were both observed at the extreme edge of the field.

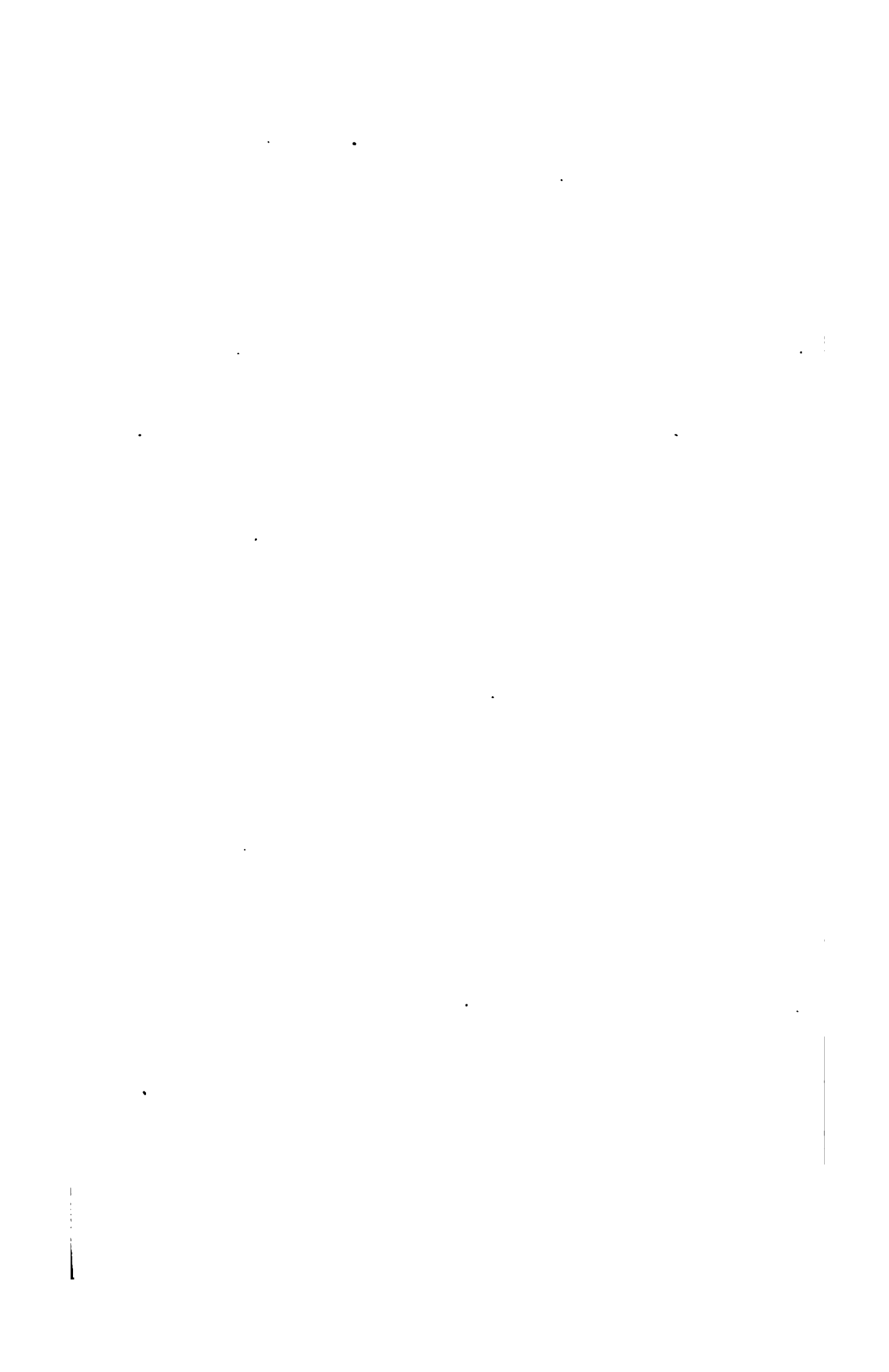
The North Polar Distances are not corrected for parallax.

The Comet was very faint throughout these observations.

APPENDIX
TO
CAPE OBSERVATIONS, 1874.

TABLES
FOR FACILITATING THE
COMPUTATION OF STAR-CONSTANTS.

ARRANGED AND COMPUTED BY
EDWARD JAMES STONE, M.A., F.R.S.,
HONORARY FELLOW OF QUEENS' COLLEGE, CAMBRIDGE,
AND
HER MAJESTY'S ASTRONOMER, CAPE OF GOOD HOPE.



INTRODUCTION

TO

TABLES FOR THE COMPUTATION OF STAR-CONSTANTS.

THE following Tables have been arranged and computed by me to facilitate the computation of Star-corrections.

The constants adopted are those of Professor Peters. The epoch for which the Tables is formed is 1880.

The Tables can easily be adapted to any other epoch or for changes in the adopted constants, but they will serve unaltered for the accurate computation of Star-corrections for many years from 1880.

There are two sets of Tables with arguments Right Ascension and Declination, or North Polar Distance, respectively.

The construction and use of the Tables will be understood from what follows:—I put

$$\begin{aligned}a &= \frac{1}{15} \sec \delta. \cos \alpha; & b &= \frac{1}{15} \sec \delta. \sin \alpha \\c &= \frac{n}{15} \tan \delta. \sin \alpha; & d &= \frac{1}{15} \tan \delta. \cos \alpha \\sc &= \frac{m}{15}, \text{ a constant for the epoch.} \\a^1 &= \sin \delta. \sin \alpha; & b^1 &= \sin \delta. \cos \alpha \\c^1 &= n. \cos \alpha; & d^1 &= \sin \alpha \\sa^1 &= \tan \omega \cos \delta.\end{aligned}$$

α and δ are the right ascension and declination of a Star; m , n , and ω the precession constants and obliquity at the epoch.

In tabulating these quantities no attention is paid to the algebraical signs which are supplied by general rules.

It will be seen on inspection that the Star-constants thus slightly modified from Bessel's form can be compendiously tabulated.

iv *Introduction to Tables for the Computation of Star-Constants,*

The N.P.D. Tables give for every minute of N.P.D. the logarithms of

$\frac{1}{15}$ sec δ ,	under the heading	$a=b$	
$\frac{n}{15}$ tan δ	„	„	c
$\frac{1}{15}$ tan δ	„	„	d
sin δ	„	„	$a^1=b^1$
tan ω cos δ	„	„	sa^1

And the logarithms of the Constants

$\frac{m}{15}$	or sc =	0.4875
n	or c^1 =	1.30220
1	or d^1 =	0.00000

The R.A. Tables are nothing more than tables of the logarithms of cosines and sines to time arranged in a convenient form for their intended use.

The hours stand vertically over or under the minutes and seconds to which they belong, and have between them, in a horizontal line, the headings which indicate the column from which a logarithm is to be taken in order to form any particular constant.

It will be seen that the logarithms of the cosines and sines fall under the headings a and b respectively.

The R.A. Tables have been expanded beyond the actual requirements of Star-correction calculations to allow of their use in accurate computations of the precessions with first differences.

In the N.P.D. Tables will be found differences of the logarithms of c to facilitate the computation of the precessions in Right Ascension.

The Tables have been extended sufficiently to avoid the necessity of interpolations in the computation of Star-corrections, except for Stars very close to the poles.

It will be seen that unless such were the case with the limits adopted in these Tables all accurate computation of Star-corrections with the ordinary form of Star-constants would be impossible two years after the epoch for which the constants were computed.

The logarithms of the Star-constants a, b, c, d, a^1 , b^1 , c^1 , and d^1 are found by the addition of the corresponding quantities taken directly from the Tables to the nearest minute of N.P.D. and the nearest second of R.A.

The signs of the Constants are given by the following rules :—

STARS SOUTH OF THE EQUATOR.

R.A.	a	b	c	d	sc	a ¹	b ¹	c ¹	d ¹	sa ¹
0 ^h to 6 ^h	+	+	—	—	+	—	+	—	+	—
6 ^h to 12 ^h	—	+	—	+	+	—	—	+	+	—
12 ^h to 18 ^h	—	—	+	+	+	+	—	+	—	—
18 ^h to 24 ^h	+	—	+	—	+	+	+	—	—	—

STARS NORTH OF THE EQUATOR.

R.A.	a	b	c	d	sc	a ¹	b ¹	c ¹	d ¹	sa ¹
0 ^h to 6 ^h	+	+	+	+	+	+	—	—	+	—
6 ^h to 12 ^h	—	+	+	—	+	+	+	+	+	—
12 ^h to 18 ^h	—	—	—	—	+	—	+	+	—	—
18 ^h to 24 ^h	+	—	—	+	+	—	—	—	—	—

The Star-corrections are computed with the ordinary day numbers of the Nautical Almanac from the forms

$$\text{Correction to Mean R.A.} = a A + b B + c C + d D + sc C$$

$$\text{Correction to Mean N.P.D.} = a^1 A + b^1 B + c^1 C + d^1 D + sa^1 A$$

sc C is sensibly constant for many hours.

The following are the corrections required by the N.P.D. Tables and the values of a constant for different epochs :—

	c	sc	c ¹	sa ¹	$\frac{m^2}{15}$
1800	+ 0'00015	— 0'00021	+ 0'00015	— 0'00022	3'0708
1820	+ 0'00011	— 0'00015	+ 0'00011	— 0'00016	3'0712
1840	+ 0'00007	— 0'00010	+ 0'00007	— 0'00011	3'0716
1860	+ 0'00004	— 0'00004	+ 0'00004	— 0'00005	3'0720
1880	+ 0'00000	+ 0'00000	+ 0'00000	+ 0'00000	3'0723
1900	— 0'00004	+ 0'00006	— 0'00004	+ 0'00005	3'0727

vi *Introduction to Tables for the Computation of Star-Constants.*

The Tables have been extensively used by my Assistants and Computers, and I find that the calculations with them are made with accuracy and quickness. The whole computation of a Star-correction requires but a very short time. The Tables greatly facilitate the computation of the constants under Bessel's form. But I hope that the use of these Tables may render it unnecessary to give Star-constants for every Star contained in the publications issued from the Observatory. The labour of computing and examining Star-constants under the ordinary form is very great, especially when the observing is carried on upon the scale of our recent work, and the constants are only available for accurate purposes for a few years from the epoch for which they have been computed. I believe that in many cases the use of published Star-constants has been continued beyond the periods for which their use can be justified with the pretensions to accuracy of our Modern Astronomy; I hope, therefore, that these Tables may lead to some slight increase of accuracy in our general astronomical work.

E. J. STONE.

1876, December 14.

STAR-CONSTANT TABLES.

ARGUMENT RIGHT ASCENSION.

R.A. Tables for Star Constants.

I

h h		a d		b c		h h		h h		a d		b c		h h	
0 & 12		b ¹	c ¹	a ¹	d ¹	11 & 23		0 & 12		b ¹	c ¹	a ¹	d ¹	11 & 23	
m	s					s	m	m	s					s	m
0	0	0'00000		.....		60	59	0	40	0'00000		7'46373		20	59
1		0'00000		5'86167		59		41		0'00000		7'47445		19	
2		0'00000		6'16270		58		42		0'00000		7'48491		18	
3		0'00000		6'33879		57		43		0'00000		7'49513		17	
4		0'00000		6'46373		56		44		0'00000		7'50512		16	
5		0'00000		6'56064		55		45		0'00000		7'51488		15	
6		0'00000		6'63982		54		46		0'00000		7'52442		14	
7		0'00000		6'70676		53		47		0'00000		7'53376		13	
8		0'00000		6'76476		52		48		0'00000		7'54291		12	
9		0'00000		6'81591		51		49		0'00000		7'55186		11	
10		0'00000		6'86167		50		50		0'00000		7'56064		10	
11		0'00000		6'90306		49		51		0'00000		7'56924		9	
12		0'00000		6'94085		48		52		0'00000		7'57767		8	
13		0'00000		6'97561		47		53		0'00000		7'58594		7	
14		0'00000		7'00779		46		54		0'00000		7'59406		6	
15		0'00000		7'03776		45		55		0'00000		7'60203		5	
16		0'00000		7'06579		44		56		0'00000		7'60985		4	
17		0'00000		7'09211		43		57		0'00000		7'61754		3	
18		0'00000		7'11694		42		58		0'00000		7'62509		2	
19		0'00000		7'14042		41		0	59	0'00000		7'63252		1	
20		0'00000		7'16270		40		1	0	0'00000		7'63982		0	59
21		0'00000		7'18389		39		2		0'00000		7'64699		59	58
22		0'00000		7'20409		38		3		0'00000		7'65406		58	
23		0'00000		7'22339		37		4		0'00000		7'66101		57	
24		0'00000		7'24188		36		5		0'00000		7'66784		56	
25		0'00000		7'25961		35		6		0'00000		7'67458		55	
26		0'00000		7'27664		34		7		9'99999		7'68121		54	
27		0'00000		7'29303		33		8		9'99999		7'68774		53	
28		0'00000		7'30882		32		9		9'99999		7'69417		52	
29		0'00000		7'32406		31		10		9'99999		7'70051		51	
30		0'00000		7'33879		30		11		9'99999		7'70676		50	
31		0'00000		7'35303		29		12		9'99999		7'71292		49	
32		0'00000		7'36682		28		13		9'99999		7'71900		48	
33		0'00000		7'38018		27		14		9'99999		7'72499		47	
34		0'00000		7'39314		26		15		9'99999		7'73090		46	
35		0'00000		7'40573		25		16		9'99999		7'73673		45	
36		0'00000		7'41797		24		17		9'99999		7'74248		44	
37		0'00000		7'42987		23		18		9'99999		7'74815		43	
38		0'00000		7'44145		22		19		9'99999		7'75376		42	
39		0'00000		7'45273		21	m	20		9'99999		7'75929		41	m
40		0'00000		7'46373		20	59	20		9'99999		7'76475		40	58
h h		b c		a d		h h		h h		b c		a d		h h	
6 & 18		a ¹	d ¹	b ¹	c ¹	5 & 17		6 & 18		a ¹	d ¹	b ¹	c ¹	5 & 17	

h h		a d		b c		h h				h h		a d		b c		h h	
0 & 12		b ¹	c ¹	a ¹	d ¹	11 & 23				0 & 12		b ¹	c ¹	a ¹	d ¹	11 & 23	
m	s					s	m			m	s					s	m
1	20	9'99999		7'76475		40	58			2	0	9'99998		7'94084		0	58
	21	9'99999		7'77015		39					1	9'99998		7'94445		59	57
	22	9'99999		7'77548		38					2	9'99998		7'94802		58	
	23	9'99999		7'78074		37					3	9'99998		7'95157		57	
	24	9'99999		7'78594		36					4	9'99998		7'95508		56	
	25	9'99999		7'79108		35					5	9'99998		7'95857		55	
	26	9'99999		7'79616		34					6	9'99998		7'96203		54	
	27	9'99999		7'80118		33					7	9'99998		7'96546		53	
	28	9'99999		7'80615		32					8	9'99998		7'96887		52	
	29	9'99999		7'81105		31					9	9'99998		7'97225		51	
	30	9'99999		7'81591		30					10	9'99998		7'97560		50	
	31	9'99999		7'82070		29					11	9'99998		7'97893		49	
	32	9'99999		7'82545		28					12	9'99998		7'98223		48	
	33	9'99999		7'83015		27					13	9'99998		7'98551		47	
	34	9'99999		7'83479		26					14	9'99998		7'98876		46	
	35	9'99999		7'83939		25					15	9'99998		7'99199		45	
	36	9'99999		7'84393		24					16	9'99998		7'99520		44	
	37	9'99999		7'84843		23					17	9'99998		7'99838		43	
	38	9'99999		7'85289		22					18	9'99998		8'00154		42	
	39	9'99999		7'85730		21					19	9'99998		8'00467		41	
	40	9'99999		7'86166		20					20	9'99998		8'00779		40	
	41	9'99999		7'86598		19					21	9'99998		8'01088		39	
	42	9'99999		7'87026		18					22	9'99998		8'01395		38	
	43	9'99999		7'87450		17					23	9'99998		8'01699		37	
	44	9'99999		7'87870		16					24	9'99998		8'02002		36	
	45	9'99999		7'88285		15					25	9'99998		8'02303		35	
	46	9'99999		7'88697		14					26	9'99998		8'02601		34	
	47	9'99999		7'89105		13					27	9'99998		8'02898		33	
	48	9'99999		7'89509		12					28	9'99997		8'03192		32	
	49	9'99999		7'89909		11					29	9'99997		8'03484		31	
	50	9'99999		7'90305		10					30	9'99997		8'03775		30	
	51	9'99999		7'90698		9					31	9'99997		8'04063		29	
	52	9'99999		7'91088		8					32	9'99997		8'04350		28	
	53	9'99999		7'91474		7					33	9'99997		8'04635		27	
	54	9'99999		7'91857		6					34	9'99997		8'04918		26	
	55	9'99998		7'92236		5					35	9'99997		8'05199		25	
	56	9'99998		7'92612		4					36	9'99997		8'05478		24	
	57	9'99998		7'92985		3					37	9'99997		8'05756		23	
	58	9'99998		7'93354		2					38	9'99997		8'06031		22	
m	1	9'99998		7'93721		1	m			m	39	9'99997		8'06305		21	m
2	0	9'99998		7'94084		0	58			2	40	9'99997		8'06578		20	57
h h		b c		a d		h h				h h		b c		a d		h h	
6 & 18		a ¹	d ¹	b ¹	c ¹	5 & 17				6 & 18		a ¹	d ¹	b ¹	c ¹	5 & 17	

h h		a d		b c		h h		h h		a d		b c		h h	
0 & 12		b' c'	a' d'	11 & 23		0 & 12		0 & 12		b' c'	a' d'	11 & 23		0 & 12	
m s				s m		m s		m s				s m		m s	
2	40	9'99997	8'06578	20	37	3	20	9'99995	8'16268	40	56	40	56	3	20
	41	9'99997	8'06848	19			21	9'99995	8'16485			39			21
	42	9'99997	8'07117	18			22	9'99995	8'16700			38			22
	43	9'99997	8'07384	17			23	9'99995	8'16915			37			23
	44	9'99997	8'07650	16			24	9'99995	8'17128			36			24
	45	9'99997	8'07914	15			25	9'99995	8'17340			35			25
	46	9'99997	8'08176	14			26	9'99995	8'17552			34			26
	47	9'99997	8'08437	13			27	9'99995	8'17762			33			27
	48	9'99997	8'08696	12			28	9'99995	8'17971			32			28
	49	9'99997	8'08954	11			29	9'99995	8'18180			31			29
	50	9'99997	8'09210	10			30	9'99995	8'18387			30			30
	51	9'99997	8'09465	9			31	9'99995	8'18593			29			31
	52	9'99997	8'09718	8			32	9'99995	8'18798			28			32
	53	9'99997	8'09970	7			33	9'99995	8'19003			27			33
	54	9'99997	8'10220	6			34	9'99995	8'19206			26			34
	55	9'99996	8'10469	5			35	9'99995	8'19409			25			35
	56	9'99996	8'10717	4			36	9'99995	8'19610			24			36
	57	9'99996	8'10963	3			37	9'99995	8'19811			23			37
	58	9'99996	8'11207	2			38	9'99995	8'20010			22			38
1	59	9'99996	8'11451	1			39	9'99994	8'20209			21			39
3	0	9'99996	8'11693	0	57		40	9'99994	8'20407			20			40
	1	9'99996	8'11933	59	56		41	9'99994	8'20604			19			41
	2	9'99996	8'12172	58			42	9'99994	8'20800			18			42
	3	9'99996	8'12410	57			43	9'99994	8'20995			17			43
	4	9'99996	8'12647	56			44	9'99994	8'21189			16			44
	5	9'99996	8'12882	55			45	9'99994	8'21383			15			45
	6	9'99996	8'13117	54			46	9'99994	8'21576			14			46
	7	9'99996	8'13349	53			47	9'99994	8'21767			13			47
	8	9'99996	8'13581	52			48	9'99994	8'21958			12			48
	9	9'99996	8'13811	51			49	9'99994	8'22148			11			49
	10	9'99996	8'14041	50			50	9'99994	8'22337			10			50
	11	9'99996	8'14269	49			51	9'99994	8'22526			9			51
	12	9'99996	8'14495	48			52	9'99994	8'22713			8			52
	13	9'99996	8'14721	47			53	9'99994	8'22900			7			53
	14	9'99996	8'14945	46			54	9'99994	8'23086			6			54
	15	9'99996	8'15169	45			55	9'99994	8'23271			5			55
	16	9'99996	8'15391	44			56	9'99994	8'23456			4			56
	17	9'99996	8'15612	43			57	9'99994	8'23639			3			57
	18	9'99996	8'15832	42			58	9'99993	8'23822			2			58
m	19	9'99995	8'16050	41	m	3	59	9'99993	8'24004			1	m	3	59
3	20	9'99995	8'16268	40	56	4	0	9'99993	8'24186			0	56	4	0
h h		b c		h h		h h		b c		a d		h h		b c	
6 & 18		a' d'	b' c'	5 & 17		6 & 18		a' d'	b' c'	5 & 17		6 & 18		a' d'	b' c'

h h		a d		b c		h h				h h		a d		b c		h h	
0 & 12		b ¹	c ¹	a ¹	d ¹	11 & 23				0 & 12		b ¹	c ¹	a ¹	d ¹	11 & 23	
m	s					s	m			m	s					s	m
4	0	9'99993		8'24186		0	56			5	20	9'99988		8'36678		40	54
	2	9'99993		8'24546		58	55				22	9'99988		8'36948		38	
	4	9'99993		8'24903		56					24	9'99988		8'37217		36	
	6	9'99993		8'25258		54					26	9'99988		8'37484		34	
	8	9'99993		8'25609		52					28	9'99988		8'37750		32	
	10	9'99993		8'25958		50					30	9'99987		8'38014		30	
	12	9'99993		8'26304		48					32	9'99987		8'38276		28	
	14	9'99993		8'26648		46					34	9'99987		8'38537		26	
	16	9'99992		8'26988		44					36	9'99987		8'38796		24	
	18	9'99992		8'27326		42					38	9'99987		8'39054		22	
	20	9'99992		8'27661		40					40	9'99987		8'39310		20	
	22	9'99992		8'27994		38					42	9'99987		8'39565		18	
	24	9'99992		8'28324		36					44	9'99986		8'39818		16	
	26	9'99992		8'28652		34					46	9'99986		8'40070		14	
	28	9'99992		8'28977		32					48	9'99986		8'40320		12	
	30	9'99992		8'29300		30					50	9'99986		8'40569		10	
	32	9'99992		8'29621		28					52	9'99986		8'40816		8	
	34	9'99991		8'29939		26					54	9'99986		8'41062		6	
	36	9'99991		8'30255		24					56	9'99985		8'41307		4	
	38	9'99991		8'30568		22				5	58	9'99985		8'41550		2	
	40	9'99991		8'30879		20				6	0	9'99985		8'41792		0	54
	42	9'99991		8'31188		18					2	9'99985		8'42032		58	53
	44	9'99991		8'31495		16					4	9'99985		8'42272		56	
	46	9'99991		8'31800		14					6	9'99985		8'42510		54	
	48	9'99990		8'32103		12					8	9'99984		8'42746		52	
	50	9'99990		8'32403		10					10	9'99984		8'42982		50	
	52	9'99990		8'32702		8					12	9'99984		8'43216		48	
	54	9'99990		8'32998		6					14	9'99984		8'43448		46	
	56	9'99990		8'33292		4					16	9'99984		8'43680		44	
4	58	9'99990		8'33585		2					18	9'99984		8'43910		42	
5	0	9'99990		8'33875		0	55				20	9'99983		8'44139		40	
	2	9'99990		8'34164		58	54				22	9'99983		8'44367		38	
	4	9'99989		8'34450		56					24	9'99983		8'44594		36	
	6	9'99989		8'34735		54					26	9'99983		8'44820		34	
	8	9'99989		8'35018		52					28	9'99983		8'45044		32	
	10	9'99989		8'35299		50					30	9'99983		8'45267		30	
	12	9'99989		8'35578		48					32	9'99982		8'45489		28	
	14	9'99989		8'35856		46					34	9'99982		8'45710		26	
	16	9'99989		8'36132		44					36	9'99982		8'45930		24	
	18	9'99988		8'36405		42	m				38	9'99982		8'46149		22	m
m	5	9'99988		8'36678		40	54			m	6	9'99982		8'46366		20	53
h h		b c		a d		h h				h h		b c		a d		h h	
6 & 18		a ¹	d ¹	b ¹	c ¹	5 & 17				6 & 18		a ¹	d ¹	b ¹	c ¹	5 & 17	

h h		a d		b c		h h		h h		a d		b c		h h	
0 & 12		b ¹	c ¹	a ¹	d ¹	11 & 23		0 & 12		b ¹	c ¹	a ¹	d ¹	11 & 23	
m	s			s	m			m	s			s	m		
6	40	9'99982		8'46366	20 53			8	0	9'99974		8'54282	0 52		
	42	9'99981		8'46583	18				2	9'99973		8'54462	58 51		
	44	9'99981		8'46799	16				4	9'99973		8'54642	56		
	46	9'99981		8'47013	14				6	9'99973		8'54821	54		
	48	9'99981		8'47226	12				8	9'99973		8'54999	52		
	50	9'99981		8'47439	10				10	9'99972		8'55177	50		
	52	9'99981		8'47650	8				12	9'99972		8'55354	48		
	54	9'99980		8'47860	6				14	9'99972		8'55530	46		
	56	9'99980		8'48069	4				16	9'99972		8'55705	44		
6	58	9'99980		8'48278	2				18	9'99972		8'55880	42		
7	0	9'99980		8'48485	0 53				20	9'99971		8'56054	40		
	2	9'99980		8'48691	58 52				22	9'99971		8'56227	38		
	4	9'99979		8'48896	56				24	9'99971		8'56400	36		
	6	9'99979		8'49101	54				26	9'99971		8'56572	34		
	8	9'99979		8'49304	52				28	9'99970		8'56743	32		
	10	9'99979		8'49506	50				30	9'99970		8'56914	30		
	12	9'99979		8'49708	48				32	9'99970		8'57084	28		
	14	9'99978		8'49908	46				34	9'99970		8'57253	26		
	16	9'99978		8'50108	44				36	9'99969		8'57421	24		
	18	9'99978		8'50307	42				38	9'99969		8'57589	22		
	20	9'99978		8'50504	40				40	9'99969		8'57757	20		
	22	9'99978		8'50701	38				42	9'99969		8'57923	18		
	24	9'99977		8'50897	36				44	9'99968		8'58089	16		
	26	9'99977		8'51092	34				46	9'99968		8'58255	14		
	28	9'99977		8'51287	32				48	9'99968		8'58419	12		
	30	9'99977		8'51480	30				50	9'99968		8'58583	10		
	32	9'99977		8'51673	28				52	9'99967		8'58747	8		
	34	9'99976		8'51864	26				54	9'99967		8'58910	6		
	36	9'99976		8'52055	24				56	9'99967		8'59072	4		
	38	9'99976		8'52245	22			8	58	9'99967		8'59234	2		
	40	9'99976		8'52434	20			9	0	9'99967		8'59395	0 51		
	42	9'99975		8'52623	18				2	9'99966		8'59555	58 50		
	44	9'99975		8'52810	16				4	9'99966		8'59715	56		
	46	9'99975		8'52997	14				6	9'99966		8'59874	54		
	48	9'99975		8'53183	12				8	9'99966		8'60033	52		
	50	9'99975		8'53368	10				10	9'99965		8'60191	50		
	52	9'99974		8'53552	8				12	9'99965		8'60349	48		
	54	9'99974		8'53736	6				14	9'99965		8'60506	46		
	56	9'99974		8'53919	4				16	9'99964		8'60662	44		
m	7	9'99974		8'54101	2 m			m	18	9'99964		8'60818	42 m		
8	0	9'99974		8'54282	0 52			9	20	9'99964		8'60973	40 50		
h h		b c		a d		h h		h h		b c		a d		h h	
6 & 18		a ¹	d ¹	b ¹	c ¹	5 & 17		6 & 18		a ¹	d ¹	b ¹	c ¹	5 & 17	

h h		a d		b c		h h				h h		a d		b c		h h	
0 & 12		b' c'		a d'		11 & 23				0 & 12		b' c'		a' d'		11 & 23	
m	s					s	m			m	s					s	m
9	20	9'99964	8'60973	40	50					10	40	9'99953	8'66769	20	79		
	22	9'99964	8'61128	38							42	9'99953	8'66904	18			
	24	9'99963	8'61282	36							44	9'99952	8'67039	16			
	26	9'99963	8'61436	34							46	9'99952	8'67174	14			
	28	9'99963	8'61589	32							48	9'99952	8'67308	12			
	30	9'99963	8'61742	30							50	9'99951	8'67442	10			
	32	9'99962	8'61894	28							52	9'99951	8'67575	8			
	34	9'99962	8'62045	26							54	9'99951	8'67708	6			
	36	9'99962	8'62196	24							56	9'99951	8'67841	4			
	38	9'99962	8'62347	22						10	58	9'99950	8'67973	2			
	40	9'99961	8'62497	20						11	0	9'99950	8'68104	0	49		
	42	9'99961	8'62646	18							2	9'99950	8'68236	58	48		
	44	9'99961	8'62795	16							4	9'99949	8'68367	56			
	46	9'99961	8'62943	14							6	9'99949	8'68497	54			
	48	9'99960	8'63091	12							8	9'99949	8'68627	52			
	50	9'99960	8'63238	10							10	9'99948	8'68757	50			
	52	9'99960	8'63385	8							12	9'99948	8'68886	48			
	54	9'99959	8'63532	6							14	9'99948	8'69015	46			
	56	9'99959	8'63678	4							16	9'99948	8'69144	44			
9	58	9'99959	8'63823	2							18	9'99947	8'69272	42			
10	0	9'99959	8'63968	0	50						20	9'99947	8'69400	40			
	2	9'99958	8'64112	58	49						22	9'99947	8'69527	38			
	4	9'99958	8'64256	56							24	9'99946	8'69654	36			
	6	9'99958	8'64400	54							26	9'99946	8'69781	34			
	8	9'99958	8'64543	52							28	9'99946	8'69907	32			
	10	9'99957	8'64685	50							30	9'99945	8'70033	30			
	12	9'99957	8'64827	48							32	9'99945	8'70159	28			
	14	9'99957	8'64969	46							34	9'99945	8'70284	26			
	16	9'99956	8'65110	44							36	9'99944	8'70409	24			
	18	9'99956	8'65251	42							38	9'99944	8'70534	22			
	20	9'99956	8'65391	40							40	9'99944	8'70658	20			
	22	9'99956	8'65531	38							42	9'99943	8'70781	18			
	24	9'99955	8'65670	36							44	9'99943	8'70905	16			
	26	9'99955	8'65809	34							46	9'99943	8'71028	14			
	28	9'99955	8'65947	32							48	9'99942	8'71151	12			
	30	9'99954	8'66085	30							50	9'99942	8'71273	10			
	32	9'99954	8'66223	28							52	9'99942	8'71395	8			
	34	9'99954	8'66360	26							54	9'99941	8'71517	6			
	36	9'99954	8'66497	24							56	9'99941	8'71638	4			
	38	9'99953	8'66633	22						m	11	9'99941	8'71759	2			
m	10	9'99953	8'66769	20	m					12	0	9'99940	8'71880	0	48		
h h		b c		a d		h h				h h		b c		a d		h h	
6 & 18		a' d'		b' c'		5 & 17				6 & 18		a' d'		b' c'		5 & 17	

h h 0 & 12		a d b ¹ c ¹	b c a ¹ d ¹	h h 11 & 23		h h 0 & 12		a d b ¹ c ¹	b c a ¹ d ¹	h h 11 & 23	
m	s			s	m	m	s			s	m
12	0	9'99940	8'71880	0	48	13	20	9'99926	8'76451	40	46
	2	9'99940	8'72000	58	47		22	9'99926	8'76559	38	
	4	9'99940	8'72120	56			24	9'99926	8'76667	36	
	6	9'99939	8'72240	54			26	9'99925	8'76775	34	
	8	9'99939	8'72359	52			28	9'99925	8'76883	32	
	10	9'99939	8'72479	50			30	9'99925	8'76990	30	
	12	9'99938	8'72597	48			32	9'99924	8'77097	28	
	14	9'99938	8'72716	46			34	9'99924	8'77204	26	
	16	9'99938	8'72834	44			36	9'99923	8'77310	24	
	18	9'99937	8'72951	42			38	9'99923	8'77416	22	
	20	9'99937	8'73069	40			40	9'99923	8'77522	20	
	22	9'99937	8'73186	38			42	9'99922	8'77628	18	
	24	9'99936	8'73303	36			44	9'99922	8'77733	16	
	26	9'99936	8'73419	34			46	9'99922	8'77839	14	
	28	9'99936	8'73535	32			48	9'99921	8'77943	12	
	30	9'99935	8'73651	30			50	9'99921	8'78048	10	
	32	9'99935	8'73767	28			52	9'99920	8'78152	8	
	34	9'99935	8'73882	26			54	9'99920	8'78257	6	
	36	9'99934	8'73997	24			56	9'99920	8'78360	4	
	38	9'99934	8'74112	22		13	58	9'99919	8'78464	2	
	40	9'99934	8'74226	20		14	0	9'99919	8'78568	0	46
	42	9'99933	8'74340	18			2	9'99919	8'78671	58	45
	44	9'99933	8'74454	16			4	9'99918	8'78774	56	
	46	9'99933	8'74567	14			6	9'99918	8'78876	54	
	48	9'99932	8'74680	12			8	9'99917	8'78979	52	
	50	9'99932	8'74793	10			10	9'99917	8'79081	50	
	52	9'99932	8'74906	8			12	9'99917	8'79183	48	
	54	9'99931	8'75018	6			14	9'99916	8'79284	46	
	56	9'99931	8'75130	4			16	9'99916	8'79386	44	
12	58	9'99930	8'75241	2			18	9'99915	8'79487	42	
13	0	9'99930	8'75353	0	47		20	9'99915	8'79588	40	
	2	9'99930	8'75464	58	46		22	9'99915	8'79689	38	
	4	9'99929	8'75575	56			24	9'99914	8'79789	36	
	6	9'99929	8'75685	54			26	9'99914	8'79890	34	
	8	9'99929	8'75795	52			28	9'99913	8'79990	32	
	10	9'99928	8'75905	50			30	9'99913	8'80090	30	
	12	9'99928	8'76015	48			32	9'99913	8'80189	28	
	14	9'99928	8'76125	46			34	9'99912	8'80289	26	
	16	9'99927	8'76234	44			36	9'99912	8'80388	24	
	18	9'99927	8'76343	42			38	9'99911	8'80487	22	
m		9'99926	8'76451	40	m	14	40	9'99911	8'80585	20	45
h h 6 & 18		b c a ¹ d ¹	a d b ¹ c ¹	h h 5 & 17		h h 6 & 18		b c a ¹ d ¹	a d b ¹ c ¹	h h 5 & 17	

h h		a d		b c		h h				h h		a d		b c		h h	
0 & 12		b ⁱ	c ⁱ	a ⁱ	d ⁱ	11 & 23				0 & 12		b ⁱ	c ⁱ	a ⁱ	d ⁱ	11 & 23	
m	s					s	m			m	s					s	m
14	40	9'99911		8'80585		20	45			16	0	9'99894		8'84358		0	44
	42	9'99911		8'80684		18					2	9'99894		8'84449		58	43
	44	9'99910		8'80782		16					4	9'99893		8'84539		56	
	46	9'99910		8'80880		14					6	9'99893		8'84629		54	
	48	9'99909		8'80978		12					8	9'99892		8'84718		52	
	50	9'99909		8'81075		10					10	9'99892		8'84808		50	
	52	9'99909		8'81173		8					12	9'99891		8'84897		48	
	54	9'99908		8'81270		6					14	9'99891		8'84986		46	
	56	9'99908		8'81367		4					16	9'99891		8'85075		44	
14	58	9'99907		8'81463		2					18	9'99890		8'85164		42	
15	0	9'99907		8'81560		0	45				20	9'99890		8'85252		40	
	2	9'99907		8'81656		58	44				22	9'99889		8'85341		38	
	4	9'99906		8'81752		56					24	9'99889		8'85429		36	
	6	9'99906		8'81848		54					26	9'99888		8'85517		34	
	8	9'99905		8'81944		52					28	9'99888		8'85605		32	
	10	9'99905		8'82039		50					30	9'99887		8'85693		30	
	12	9'99904		8'82134		48					32	9'99887		8'85780		28	
	14	9'99904		8'82229		46					34	9'99886		8'85867		26	
	16	9'99904		8'82324		44					36	9'99886		8'85955		24	
	18	9'99903		8'82419		42					38	9'99886		8'86042		22	
	20	9'99903		8'82513		40					40	9'99885		8'86128		20	
	22	9'99902		8'82607		38					42	9'99885		8'86215		18	
	24	9'99902		8'82701		36					44	9'99884		8'86301		16	
	26	9'99901		8'82795		34					46	9'99884		8'86388		14	
	28	9'99901		8'82888		32					48	9'99883		8'86474		12	
	30	9'99901		8'82982		30					50	9'99883		8'86560		10	
	32	9'99900		8'83075		28					52	9'99882		8'86645		8	
	34	9'99900		8'83168		26					54	9'99882		8'86731		6	
	36	9'99899		8'83261		24					56	9'99881		8'86816		4	
	38	9'99899		8'83353		22				16	58	9'99881		8'86902		2	
	40	9'99898		8'83446		20				17	0	9'99880		8'86987		0	43
	42	9'99898		8'83538		18					2	9'99880		8'87072		58	42
	44	9'99898		8'83630		16					4	9'99879		8'87156		56	
	46	9'99897		8'83721		14					6	9'99879		8'87241		54	
	48	9'99897		8'83813		12					8	9'99879		8'87325		52	
	50	9'99896		8'83904		10					10	9'99878		8'87410		50	
	52	9'99896		8'83996		8					12	9'99878		8'87494		48	
	54	9'99895		8'84087		6					14	9'99877		8'87578		46	
m	56	9'99895		8'84177		4					16	9'99877		8'87662		44	
15	58	9'99895		8'84268		2	m			m	18	9'99876		8'87745		42	m
16	0	9'99894		8'84358		0	44			17	20	9'99876		8'87829		40	42
h h		b c		a d		h h				h h		b c		a d		h h	
0 & 18		a ⁱ	d ⁱ	b ⁱ	c ⁱ	5 & 17				0 & 18		a ⁱ	d ⁱ	b ⁱ	c ⁱ	5 & 17	

h h				h h				h h				h h			
0 & 12		a d	b c	11 & 23		0 & 12		a d	b c	11 & 23		0 & 12		a d	b c
		b ¹ c ¹	a ¹ d ¹					b ¹ c ¹	a ¹ d ¹					b ¹ c ¹	a ¹ d ¹
m	s			s	m	m	s			s	m	m	s		
17	20	9'99876	8'87829	40	42	18	40	9'99856	8'91040	20	41	19	40	9'99856	8'91040
	22	9'99875	8'87912	38			42	9'99855	8'91118	18			42	9'99855	8'91118
	24	9'99875	8'87995	36			44	9'99855	8'91195	16			44	9'99855	8'91195
	26	9'99874	8'88078	34			46	9'99854	8'91272	14			46	9'99854	8'91272
	28	9'99874	8'88161	32			48	9'99854	8'91349	12			48	9'99854	8'91349
	30	9'99873	8'88243	30			50	9'99853	8'91426	10			50	9'99853	8'91426
	32	9'99873	8'88326	28			52	9'99853	8'91502	8			52	9'99853	8'91502
	34	9'99872	8'88408	26			54	9'99852	8'91579	6			54	9'99852	8'91579
	36	9'99872	8'88490	24			56	9'99852	8'91655	4			56	9'99852	8'91655
	38	9'99871	8'88572	22			18 58	9'99851	8'91731	2			18 58	9'99851	8'91731
	40	9'99871	8'88654	20			19 0	9'99851	8'91807	0	41		19 0	9'99851	8'91807
	42	9'99870	8'88736	18			2	9'99850	8'91883	58	40		2	9'99850	8'91883
	44	9'99870	8'88817	16			4	9'99850	8'91959	56			4	9'99850	8'91959
	46	9'99869	8'88899	14			6	9'99849	8'92035	54			6	9'99849	8'92035
	48	9'99869	8'88980	12			8	9'99848	8'92110	52			8	9'99848	8'92110
	50	9'99868	8'89061	10			10	9'99848	8'92186	50			10	9'99848	8'92186
	52	9'99868	8'89142	8			12	9'99847	8'92261	48			12	9'99847	8'92261
	54	9'99867	8'89223	6			14	9'99847	8'92336	46			14	9'99847	8'92336
	56	9'99867	8'89304	4			16	9'99846	8'92411	44			16	9'99846	8'92411
17	58	9'99866	8'89384	2			18	9'99846	8'92486	42			18	9'99846	8'92486
18	0	9'99866	8'89464	0	42		20	9'99845	8'92561	40			20	9'99845	8'92561
	2	9'99865	8'89545	58	41		22	9'99845	8'92636	38			22	9'99845	8'92636
	4	9'99865	8'89625	56			24	9'99844	8'92710	36			24	9'99844	8'92710
	6	9'99864	8'89704	54			26	9'99844	8'92784	34			26	9'99844	8'92784
	8	9'99864	8'89784	52			28	9'99843	8'92859	32			28	9'99843	8'92859
	10	9'99863	8'89864	50			30	9'99843	8'92933	30			30	9'99843	8'92933
	12	9'99863	8'89943	48			32	9'99842	8'93007	28			32	9'99842	8'93007
	14	9'99862	8'90023	46			34	9'99842	8'93081	2			34	9'99842	8'93081
	16	9'99862	8'90102	44			36	9'99841	8'93154	24			36	9'99841	8'93154
	18	9'99861	8'90181	42			38	9'99840	8'93228	22			38	9'99840	8'93228
	20	9'99861	8'90260	40			40	9'99840	8'93302	20			40	9'99840	8'93302
	22	9'99860	8'90338	38			42	9'99839	8'93375	18			42	9'99839	8'93375
	24	9'99860	8'90417	36			44	9'99839	8'93448	16			44	9'99839	8'93448
	26	9'99859	8'90495	34			46	9'99838	8'93521	14			46	9'99838	8'93521
	28	9'99859	8'90574	32			48	9'99838	8'93594	12			48	9'99838	8'93594
	30	9'99858	8'90652	30			50	9'99837	8'93667	10			50	9'99837	8'93667
	32	9'99858	8'90730	28			52	9'99837	8'93740	8			52	9'99837	8'93740
	34	9'99857	8'90808	26			54	9'99836	8'93812	6			54	9'99836	8'93812
	36	9'99857	8'90885	24			56	9'99836	8'93885	4			56	9'99836	8'93885
	38	9'99856	8'90963	22	m		19 58	9'99835	8'93957	2	m		19 58	9'99835	8'93957
m	18	40	8'91040	20	41		20 0	9'99834	8'94030	0	40		20 0	9'99834	8'94030
6 & 18		b c	a d	5 & 17		6 & 18		b c	a d	5 & 17		6 & 18		b c	a d
		a ¹ d ¹	b ¹ c ¹					a ¹ d ¹	b ¹ c ¹					a ¹ d ¹	b ¹ c ¹

h h		a d		b c		h h				h h		a d		b c		h h		
0 & 12		b' c'		a' d'		11 & 23				0 & 12		b' c'		a' d'		11 & 23		
m	s					s	m			m	s					s	m	
20	0	9'99834		8'94030		0	40			21	20	9'99812		8'96825		40	38	
	2	9'99834		8'94102		58					22	9'99811		8'96892		38		
	4	9'99833		8'94174		56					24	9'99810		8'96960		36		
	6	9'99833		8'94246		54					26	9'99810		8'97027		34		
	8	9'99832		8'94317		52					28	9'99809		8'97095		32		
	10	9'99832		8'94389		50					30	9'99809		8'97162		30		
	12	9'99831		8'94461		48					32	9'99808		8'97229		28		
	14	9'99831		8'94532		46					34	9'99807		8'97296		26		
	16	9'99830		8'94603		44					36	9'99807		8'97363		24		
	18	9'99829		8'94675		42					38	9'99806		8'97430		22		
	20	9'99829		8'94746		40					40	9'99806		8'97496		20		
	22	9'99828		8'94817		38					42	9'99805		8'97563		18		
	24	9'99828		8'94887		36					44	9'99804		8'97629		16		
	26	9'99827		8'94958		34					46	9'99804		8'97696		14		
	28	9'99827		8'95029		32					48	9'99803		8'97762		12		
	30	9'99826		8'95099		30					50	9'99803		8'97828		10		
	32	9'99825		8'95170		28					52	9'99802		8'97894		8		
	34	9'99825		8'95240		26					54	9'99801		8'97960		6		
	36	9'99824		8'95310		24					56	9'99801		8'98026		4		
	38	9'99824		8'95380		22				21	58	9'99800		8'98092		2		
	40	9'99823		8'95450		20				22	0	9'99800		8'98157		0	38	
	42	9'99823		8'95520		18					2	9'99799		8'98223		58	37	
	44	9'99822		8'95589		16					4	9'99798		8'98288		56		
	46	9'99821		8'95659		14					6	9'99798		8'98354		54		
	48	9'99821		8'95728		12					8	9'99797		8'98419		52		
	50	9'99820		8'95798		10					10	9'99797		8'98484		50		
	52	9'99820		8'95867		8					12	9'99796		8'98549		48		
	54	9'99819		8'95936		6					14	9'99795		8'98614		46		
	56	9'99819		8'96005		4					16	9'99795		8'98679		44		
20	58	9'99818		8'96074		2					18	9'99794		8'98744		42		
21	0	9'99817		8'96143		0	39				20	9'99793		8'98808		40		
	2	9'99817		8'96212		58	38				22	9'99793		8'98873		38		
	4	9'99816		8'96280		56					24	9'99792		8'98937		36		
	6	9'99816		8'96349		54					26	9'99792		8'99002		34		
	8	9'99815		8'96417		52					28	9'99791		8'99066		32		
	10	9'99815		8'96485		50					30	9'99790		8'99130		30		
	12	9'99814		8'96553		48					32	9'99790		8'99194		28		
	14	9'99813		8'96621		46					34	9'99789		8'99258		26		
	16	9'99813		8'96689		44					36	9'99789		8'99322		24		
	18	9'99812		8'96757		42					38	9'99788		8'99386		22		
m	21	20		8'96825		40	m			m	22	40	9'99787		8'99450		20	37
h h		b c		a d		h h				h h		b c		a d		h h		
6 & 18		a' d'		b' c'		6 & 17				6 & 18		a' d'		b' c'		6 & 17		

h h		a d		b c		h h				h h		a d		b c		h h	
0 & 12		b ¹ c ¹		a ¹ d ¹		11 & 23				0 & 12		b ¹ c ¹		a ¹ d ¹		11 & 23	
m	s					s	m			m	s					s	m
22	40	9'99787		8'99450		20	37			24	0	9'99761		9'01923		0	36
	42	9'99787		8'99513		18					2	9'99761		9'01984		58	35
	44	9'99786		8'99577		16					4	9'99760		9'02043		56	
	46	9'99785		8'99640		14					6	9'99759		9'02103		54	
	48	9'99785		8'99704		12					8	9'99759		9'02163		52	
	50	9'99784		8'99767		10				10	9'99758		9'02223		50		
	52	9'99783		8'99830		8				12	9'99757		9'02283		48		
	54	9'99783		8'99893		6				14	9'99757		9'02342		46		
	56	9'99782		8'99956		4				16	9'99756		9'02401		44		
22	58	9'99782		9'00019		2				18	9'99755		9'02461		42		
23	0	9'99781		9'00082		0	37			20	9'99755		9'02520		40		
	2	9'99780		9'00144		58	36			22	9'99754		9'02580		38		
	4	9'99780		9'00207		56				24	9'99753		9'02639		36		
	6	9'99779		9'00269		54				26	9'99753		9'02698		34		
	8	9'99778		9'00332		52				28	9'99752		9'02757		32		
	10	9'99778		9'00394		50				30	9'99751		9'02816		30		
	12	9'99777		9'00456		48				32	9'99751		9'02874		28		
	14	9'99776		9'00518		46				34	9'99750		9'02933		26		
	16	9'99776		9'00581		44				36	9'99749		9'02992		24		
	18	9'99775		9'00642		42				38	9'99749		9'03050		22		
	20	9'99775		9'00704		40				40	9'99748		9'03109		20		
	22	9'99774		9'00766		38				42	9'99747		9'03167		18		
	24	9'99773		9'00828		36				44	9'99747		9'03226		16		
	26	9'99773		9'00889		34				46	9'99746		9'03284		14		
	28	9'99772		9'00951		32				48	9'99745		9'03342		12		
	30	9'99771		9'01012		30				50	9'99745		9'03400		10		
	32	9'99771		9'01074		28				52	9'99744		9'03458		8		
	34	9'99770		9'01135		26				54	9'99743		9'03516		6		
	36	9'99769		9'01196		24				56	9'99742		9'03574		4		
	38	9'99769		9'01257		22				24	58	9'99742		9'03632		2	
	40	9'99768		9'01318		20				25	0	9'99741		9'03690		0	35
	42	9'99767		9'01379		18					2	9'99740		9'03747		58	34
	44	9'99767		9'01440		16					4	9'99740		9'03805		56	
	46	9'99766		9'01501		14					6	9'99739		9'03862		54	
	48	9'99765		9'01561		12					8	9'99738		9'03920		52	
	50	9'99765		9'01622		10				10	9'99738		9'03977		50		
	52	9'99764		9'01682		8				12	9'99737		9'04034		48		
	54	9'99763		9'01743		6				14	9'99736		9'04091		46		
	56	9'99763		9'01803		4				16	9'99736		9'04149		44		
m	23	58		9'01863		2	m			m	18	9'99735		9'04206		42	m
24	0	9'99761		9'01923		0	36			25	20	9'99734		9'04262		40	34
h h		b c		a d		h h				h h		b c		a d		h h	
6 & 18		a ¹ d ¹		b ¹ c ¹		5 & 17				6 & 18		a ¹ d ¹		b ¹ c ¹		5 & 17	

h h		a d		b c		h h				h h		a d		b c		h h		
0 & 12		b ¹	c ¹	a ¹	d ¹	11 & 23				0 & 12		b ¹	c ¹	a ¹	d ¹	11 & 23		
m	s					s	m			m	s					s	m	
25	20	9'99734		9'04262		40	34			26	40	9'99705		9'06481		20	33	
	22	9'99733		9'04319		38					42	9'99705		9'06535		18		
	24	9'99733		9'04376		36					44	9'99704		9'06589		16		
	26	9'99732		9'04433		34					46	9'99703		9'06642		14		
	28	9'99731		9'04490		32					48	9'99702		9'06696		12		
	30	9'99731		9'04546		30					50	9'99702		9'06750		10		
	32	9'99730		9'04603		28					52	9'99701		9'06804		8		
	34	9'99729		9'04659		26					54	9'99700		9'06857		6		
	36	9'99729		9'04715		24					56	9'99699		9'06911		4		
	38	9'99728		9'04772		22				26	58	9'99699		9'06964		2		
	40	9'99727		9'04828		20				27	0	9'99698		9'07018		0	33	
	42	9'99726		9'04884		18					2	9'99697		9'07071		58	32	
	44	9'99726		9'04940		16					4	9'99696		9'07124		56		
	46	9'99725		9'04996		14					6	9'99696		9'07177		54		
	48	9'99724		9'05052		12					8	9'99695		9'07231		52		
	50	9'99724		9'05108		10					10	9'99694		9'07284		50		
	52	9'99723		9'05164		8					12	9'99693		9'07337		48		
	54	9'99722		9'05219		6					14	9'99693		9'07390		46		
	56	9'99721		9'05275		4					16	9'99692		9'07442		44		
25	58	9'99721		9'05330		2					18	9'99691		9'07495		42		
26	0	9'99720		9'05386		0	34				20	9'99690		9'07548		40		
	2	9'99719		9'05441		58	33				22	9'99690		9'07601		38		
	4	9'99718		9'05497		56					24	9'99689		9'07653		36		
	6	9'99718		9'05552		54					26	9'99688		9'07706		34		
	8	9'99717		9'05607		52					28	9'99687		9'07758		32		
	10	9'99716		9'05662		50					30	9'99687		9'07811		30		
	12	9'99716		9'05717		48					32	9'99686		9'07863		28		
	14	9'99715		9'05772		46					34	9'99685		9'07915		26		
	16	9'99714		9'05827		44					36	9'99684		9'07968		24		
	18	9'99713		9'05882		42					38	9'99684		9'08020		22		
	20	9'99713		9'05937		40					40	9'99683		9'08072		20		
	22	9'99712		9'05991		38					42	9'99682		9'08124		18		
	24	9'99711		9'06046		36					44	9'99681		9'08176		16		
	26	9'99710		9'06101		34					46	9'99680		9'08228		14		
	28	9'99710		9'06155		32					48	9'99680		9'08280		12		
	30	9'99709		9'06210		30					50	9'99679		9'08331		10		
	32	9'99708		9'06264		28					52	9'99678		9'08383		8		
	34	9'99708		9'06318		26					54	9'99677		9'08435		6		
	36	9'99707		9'06372		24					56	9'99677		9'08486		4		
	38	9'99706		9'06427		22					58	9'99676		9'08538		2		
m	40	9'99705		9'06481		20	m			m	28	0	9'99675		9'08589		0	32
h h		b c		a d		h h				h h		b c		a d		h h		
6 & 18		a ¹	d ¹	b ¹	c ¹	6 & 17				6 & 18		a ¹	d ¹	b ¹	c ¹	6 & 17		

h h		a d		b c		h h		h h		a d		b c		h h	
0 & 12		b ¹	c ¹	a ¹	d ¹	11 & 23		0 & 12		b ¹	c ¹	a ¹	d ¹	11 & 23	
m	s					s	m	m	s					s	m
28	0	9'99675		9'08589		0	32	29	20	9'99643		9'10599		40	30
	2	9'99674		9'08641		58	31		22	9'99642		9'10648		38	
	4	9'99674		9'08692		56			24	9'99642		9'10697		36	
	6	9'99673		9'08744		54			26	9'99641		9'10746		34	
	8	9'99672		9'08795		52			28	9'99640		9'10795		32	
	10	9'99671		9'08846		50			30	9'99639		9'10844		30	
	12	9'99670		9'08897		48			32	9'99638		9'10893		28	
	14	9'99670		9'08948		46			34	9'99638		9'10941		26	
	16	9'99669		9'08999		44			36	9'99637		9'10990		24	
	18	9'99668		9'09050		42			38	9'99636		9'11039		22	
	20	9'99667		9'09101		40			40	9'99635		9'11087		20	
	22	9'99666		9'09152		38			42	9'99634		9'11136		18	
	24	9'99666		9'09202		36			44	9'99633		9'11184		16	
	26	9'99665		9'09253		34			46	9'99633		9'11233		14	
	28	9'99664		9'09304		32			48	9'99632		9'11281		12	
	30	9'99663		9'09354		30			50	9'99631		9'11329		10	
	32	9'99663		9'09405		28			52	9'99630		9'11377		8	
	34	9'99662		9'09455		26			54	9'99629		9'11426		6	
	36	9'99661		9'09506		24			56	9'99629		9'11474		4	
	38	9'99660		9'09556		22		29	58	9'99628		9'11522		2	
	40	9'99659		9'09606		20		30	0	9'99627		9'11570	0	30	
	42	9'99659		9'09656		18			10	9'99623		9'11809	50	29	
	44	9'99658		9'09707		16			20	9'99618		9'12047	40		
	46	9'99657		9'09757		14			30	9'99614		9'12283	30		
	48	9'99656		9'09807		12			40	9'99610		9'12519	20		
	50	9'99655		9'09857		10		30	50	9'99606		9'12753	10		
	52	9'99655		9'09907		8		31	0	9'99601		9'12985	0	29	
	54	9'99654		9'09956		6			10	9'99597		9'13217	50	28	
	56	9'99653		9'10006		4			20	9'99593		9'13447	40		
28	58	9'99652		9'10056		2			30	9'99588		9'13676	30		
29	0	9'99651		9'10106		0	31		40	9'99584		9'13904	20		
	2	9'99651		9'10155		58	30	31	50	9'99580		9'14130	10		
	4	9'99650		9'10205		56		32	0	9'99575		9'14356	0	28	
	6	9'99649		9'10254		54			10	9'99571		9'14580	50	27	
	8	9'99648		9'10304		52			20	9'99566		9'14803	40		
	10	9'99647		9'10353		50			30	9'99562		9'15024	30		
	12	9'99647		9'10402		48			40	9'99557		9'15245	20		
	14	9'99646		9'10452		46		32	50	9'99553		9'15465	10	m	
	16	9'99645		9'10501		44		33	0	9'99548		9'15683	0	27	
	18	9'99644		9'10550		42	m		10	9'99544		9'15900	50	26	
m	20	9'99643		9'10599		40	30	33	20	9'99539		9'16116	40	26	
h h		b c		a d		h h		h h		b c		a d		h h	
6 & 18		a ¹	d ¹	b ¹	c ¹	5 & 17		6 & 18		a ¹	d ¹	b ¹	c ¹	5 & 17	

h h		a d		b c		h h				h h		a d		b c		h h	
0 & 12		b ¹	c ¹	a ¹	d ¹	11 & 23				0 & 12		b ¹	c ¹	a ¹	d ¹	11 & 23	
m	s					s	m			m	s					s	m
33	20	9'99539		9'16116		40	26			40	0	9'99335		9'23967		0	20
	30	9'99534		9'16331		30					10	9'99330		9'24146		50	19
	40	9'99530		9'16545		20					20	9'99324		9'24324		40	
33	50	9'99525		9'16758		10					30	9'99318		9'24501		30	
34	0	9'99520		9'16970		0	26				40	9'99313		9'24677		20	
	10	9'99516		9'17181		50	25			40	50	9'99307		9'24853		10	
	20	9'99511		9'17391		40				41	0	9'99301		9'25028		0	19
	30	9'99506		9'17600		30					10	9'99296		9'25203		50	18
	40	9'99501		9'17807		20					20	9'99290		9'25376		40	
34	50	9'99496		9'18014		10					30	9'99284		9'25549		30	
35	0	9'99492		9'18220		0	25				40	9'99278		9'25721		20	
	10	9'99487		9'18424		50	24			41	50	9'99272		9'25893		10	
	20	9'99482		9'18628		40				42	0	9'99267		9'26063		0	18
	30	9'99477		9'18831		30					10	9'99261		9'26233		50	17
	40	9'99472		9'19033		20					20	9'99255		9'26403		40	
35	50	9'99467		9'19233		10					30	9'99249		9'26571		30	
36	0	9'99462		9'19433		0	24				40	9'99243		9'26739		20	
	10	9'99457		9'19632		50	23			42	50	9'99237		9'26907		10	
	20	9'99452		9'19830		40				43	0	9'99231		9'27073		0	17
	30	9'99447		9'20027		30					10	9'99225		9'27240		50	16
	40	9'99442		9'20223		20					20	9'99219		9'27405		40	
36	50	9'99437		9'20419		10					30	9'99213		9'27570		30	
37	0	9'99432		9'20613		0	23				40	9'99207		9'27734		20	
	10	9'99426		9'20807		50	22			43	50	9'99201		9'27897		10	
	20	9'99421		9'20999		40				44	0	9'99195		9'28060		0	16
	30	9'99416		9'21191		30					10	9'99189		9'28222		50	15
	40	9'99411		9'21382		20					20	9'99182		9'28384		40	
37	50	9'99406		9'21572		10					30	9'99176		9'28545		30	
38	0	9'99400		9'21761		0	22				40	9'99170		9'28705		20	
	10	9'99395		9'21949		50	21			44	50	9'99164		9'28864		10	
	20	9'99390		9'22137		40				45	0	9'99157		9'29024		0	15
	30	9'99384		9'22323		30					10	9'99151		9'29182		50	14
	40	9'99379		9'22509		20					20	9'99145		9'29340		40	
38	50	9'99374		9'22694		10					30	9'99138		9'29497		30	
39	0	9'99368		9'22878		0	21				40	9'99132		9'29654		20	
	10	9'99363		9'23062		50	20			45	50	9'99126		9'29810		10	
	20	9'99357		9'23244		40				46	0	9'99119		9'29966		0	14
	30	9'99352		9'23426		30					10	9'99113		9'30120		50	13
	40	9'99346		9'23607		20					20	9'99106		9'30275		40	
m	39	9'99341		9'23788		10	m			m	30	9'99100		9'30429		30	m
40	0	9'99335		9'23967		0	20			46	40	9'99093		9'30582		20	13
h h		b c		a d		h h				h h		b c		a d		h h	
6 & 18		a ¹	d ¹	b ¹	c ¹	6 & 17				6 & 18		a ¹	d ¹	b ¹	c ¹	6 & 17	

h h		a d		b c		h h		h h		a d		b c		h h	
0 & 12		b ⁱ	c ⁱ	a ⁱ	d ⁱ	11 & 23		0 & 12		b ⁱ	c ⁱ	a ⁱ	d ⁱ	11 & 23	
m	s					s	m	m	s					s	m
46	40	9'99093		9'30582		20	13	53	20	9'98813		9'36289		40	6
46	50	9'99087		9'30735		10			30	9'98806		9'36422		30	
47	0	9'99080		9'30887		0	13		40	9'98798		9'36555		20	
	10	9'99074		9'31038		50	12	53	50	9'98791		9'36687		10	
	20	9'99067		9'31189		40		54	0	9'98783		9'36819		0	6
	30	9'99060		9'31340		30			10	9'98776		9'36950		50	5
	40	9'99054		9'31490		20			20	9'98768		9'37081		40	
47	50	9'99047		9'31639		10			30	9'98760		9'37211		30	
48	0	9'99040		9'31788		0	12		40	9'98753		9'37341		20	
	10	9'99034		9'31936		50	11	54	50	9'98745		9'37471		10	
	20	9'99027		9'32084		40		55	0	9'98737		9'37600		0	5
	30	9'99020		9'32231		30			10	9'98729		9'37729		50	4
	40	9'99013		9'32378		20			20	9'98722		9'37858		40	
48	50	9'99007		9'32524		10			30	9'98714		9'37986		30	
49	0	9'99000		9'32670		0	11		40	9'98706		9'38113		20	
	10	9'98993		9'32815		50	10	55	50	9'98698		9'38241		10	
	20	9'98986		9'32960		40		56	0	9'98690		9'38368		0	4
	30	9'98979		9'33104		30			10	9'98683		9'38494		50	3
	40	9'98972		9'33248		20			20	9'98675		9'38620		40	
49	50	9'98965		9'33391		10			30	9'98667		9'38746		30	
50	0	9'98958		9'33534		0	10		40	9'98659		9'38871		20	
	10	9'98951		9'33676		50	9	56	50	9'98651		9'38996		10	
	20	9'98944		9'33818		40		57	0	9'98643		9'39121		0	3
	30	9'98937		9'33959		30			10	9'98635		9'39245		50	2
	40	9'98930		9'34100		20			20	9'98627		9'39369		40	
50	50	9'98923		9'34240		10			30	9'98619		9'39492		30	
51	0	9'98916		9'34380		0	9		40	9'98610		9'39615		20	
	10	9'98909		9'34519		50	8	57	50	9'98602		9'39738		10	
	20	9'98901		9'34658		40		58	0	9'98594		9'39860		0	2
	30	9'98894		9'34796		30			10	9'98586		9'39982		50	1
	40	9'98887		9'34934		20			20	9'98578		9'40103		40	
51	50	9'98880		9'35072		10			30	9'98570		9'40225		30	
52	0	9'98872		9'35209		0	8		40	9'98561		9'40346		20	
	10	9'98865		9'35345		50	7	58	50	9'98553		9'40466		10	
	20	9'98858		9'35482		40		59	0	9'98545		9'40586		0	1
	30	9'98850		9'35617		30			10	9'98536		9'40706		50	0
	40	9'98843		9'35752		20			20	9'98528		9'40825		40	
52	50	9'98836		9'35887		10	m		30	9'98520		9'40944		30	
53	0	9'98828		9'36022		0	7	m	40	9'98511		9'41063		20	
	10	9'98821		9'36155		50	6	59	50	9'98503		9'41182		10	m
m	20	9'98813		9'36289		40	6	60	0	9'98494		9'41300		0	0
h h		b c		a d		h h		h h		b c		a d		h h	
6 & 18		a ⁱ	d ⁱ	b ⁱ	c ⁱ	5 & 17		6 & 18		a ⁱ	d ⁱ	b ⁱ	c ⁱ	5 & 17	

h	h	a	d	b	c	h	h	h	h	a	d	b	c	h	h
1 & 13		b ¹	c ¹	a ¹	d ¹	10 & 22		1 & 13		b ¹	c ¹	a ¹	d ¹	10 & 22	
m	s					s	m	m	s					s	m
13	20	9'97738		9'49768		40	46	20	0	9'97299		9'53405		0	40
	30	9'97727		9'49863		30		10		9'97287		9'53492		50	39
	40	9'97717		9'49958		20		20		9'97276		9'53578		40	
13	50	9'97706		9'50053		10		30		9'97264		9'53665		30	
14	0	9'97696		9'50148		0	46	40		9'97252		9'53751		20	
	10	9'97685		9'50242		50	45	20	50	9'97241		9'53837		10	
	20	9'97674		9'50336		40		21	0	9'97229		9'53922		0	39
	30	9'97664		9'50430		30		10		9'97217		9'54008		50	38
	40	9'97653		9'50523		20		20		9'97206		9'54093		40	
14	50	9'97643		9'50617		10		30		9'97194		9'54178		30	
15	0	9'97632		9'50710		0	45	40		9'97182		9'54263		20	
	10	9'97621		9'50803		50	44	21	50	9'97171		9'54348		10	
	20	9'97610		9'50896		40		22	0	9'97159		9'54433		0	38
	30	9'97600		9'50988		30		10		9'97147		9'54517		50	37
	40	9'97589		9'51080		20		20		9'97135		9'54601		40	
15	50	9'97578		9'51172		10		30		9'97123		9'54685		30	
16	0	9'97567		9'51264		0	44	40		9'97111		9'54769		20	
	10	9'97556		9'51356		50	43	22	50	9'97099		9'54853		10	
	20	9'97545		9'51447		40		23	0	9'97087		9'54936		0	37
	30	9'97534		9'51538		30		10		9'97075		9'55019		50	36
	40	9'97523		9'51629		20		20		9'97063		9'55102		40	
16	50	9'97512		9'51720		10		30		9'97051		9'55185		30	
17	0	9'97501		9'51811		0	43	40		9'97039		9'55268		20	
	10	9'97490		9'51901		50	42	23	50	9'97027		9'55351		10	
	20	9'97479		9'51991		40		24	0	9'97015		9'55433		0	36
	30	9'97468		9'52081		30		10		9'97003		9'55515		50	35
	40	9'97457		9'52171		20		20		9'96991		9'55597		40	
17	50	9'97446		9'52260		10		30		9'96979		9'55679		30	
18	0	9'97435		9'52350		0	42	40		9'96966		9'55761		20	
	10	9'97424		9'52439		50	41	24	50	9'96954		9'55842		10	
	20	9'97412		9'52527		40		25	0	9'96942		9'55923		0	35
	30	9'97401		9'52616		30		10		9'96930		9'56005		50	34
	40	9'97390		9'52705		20		20		9'96917		9'56085		40	
18	50	9'97378		9'52793		10		30		9'96905		9'56166		30	
19	0	9'97367		9'52881		0	41	40		9'96893		9'56247		20	
	10	9'97356		9'52969		50	40	25	50	9'96880		9'56327		10	
	20	9'97344		9'53057		40		26	0	9'96868		9'56408		0	34
	30	9'97333		9'53144		30		10		9'96855		9'56488		50	33
	40	9'97322		9'53231		20		20		9'96843		9'56568		40	
m								30		9'96830		9'56647		30	m
19	50	9'97310		9'53318		10	m	m	30	9'96818		9'56727		20	33
20	0	9'97299		9'53405		0	40	26	40						
h	h	b	c	a	d	h	h	h	h	b	c	a	d	h	h
7 & 19		a ¹	d ¹	b ¹	c ¹	4 & 16		7 & 19		a ¹	d ¹	b ¹	c ¹	4 & 16	

h h		a d		b c		h h				h h		a d		b c		h h	
1 & 13		b ¹	c ¹	a ¹	d ¹	10 & 22				1 & 13		b ¹	c ¹	a ¹	d ¹	10 & 22	
m	s					s	m			m	s					s	m
26	40	9'96818		9'56727		20	33			33	20	9'96294		9'59778		40	26
26	50	9'96805		9'56806		10					30	9'96281		9'59851		30	
27	0	9'96793		9'56886		0	33				40	9'96267		9'59924		20	
	10	9'96780		9'56965		50	32			33	50	9'96254		9'59997		10	
	20	9'96767		9'57044		40				34	0	9'96240		9'60070		0	26
	30	9'96755		9'57122		30					10	9'96226		9'60143		50	25
	40	9'96742		9'57201		20					20	9'96212		9'60215		40	
27	50	9'96729		9'57279		10					30	9'96198		9'60287		30	
28	0	9'96717		9'57358		0	32				40	9'96185		9'60359		20	
	10	9'96704		9'57436		50	31			34	50	9'96171		9'60431		10	
	20	9'96691		9'57514		40				35	0	9'96157		9'60503		0	25
	30	9'96678		9'57591		30					10	9'96143		9'60575		50	24
	40	9'96665		9'57669		20					20	9'96129		9'60646		40	
28	50	9'96652		9'57746		10					30	9'96115		9'60718		30	
29	0	9'96640		9'57824		0	31				40	9'96101		9'60789		20	
	10	9'96627		9'57901		50	30			35	50	9'96087		9'60860		10	
	20	9'96614		9'57978		40				36	0	9'96073		9'60931		0	24
	30	9'96601		9'58055		30					10	9'96059		9'61002		50	23
	40	9'96588		9'58131		20					20	9'96045		9'61073		40	
29	50	9'96575		9'58208		10					30	9'96031		9'61144		30	
30	0	9'96562		9'58284		0	30				40	9'96017		9'61214		20	
	10	9'96548		9'58360		50	29			36	50	9'96002		9'61284		10	
	20	9'96535		9'58436		40				37	0	9'95988		9'61354		0	23
	30	9'96522		9'58512		30					10	9'95974		9'61425		50	22
	40	9'96509		9'58588		20					20	9'95960		9'61494		40	
30	50	9'96496		9'58663		10					30	9'95945		9'61564		30	
31	0	9'96483		9'58739		0	29				40	9'95931		9'61634		20	
	10	9'96469		9'58814		50	28			37	50	9'95917		9'61703		10	
	20	9'96456		9'58889		40				38	0	9'95902		9'61773		0	22
	30	9'96443		9'58964		30					10	9'95888		9'61842		50	21
	40	9'96429		9'59039		20					20	9'95873		9'61911		40	
31	50	9'96416		9'59113		10					30	9'95859		9'61980		30	
32	0	9'96403		9'59188		0	28				40	9'95845		9'62049		20	
	10	9'96389		9'59262		50	27			38	50	9'95830		9'62118		10	
	20	9'96376		9'59336		40				39	0	9'95815		9'62186		0	21
	30	9'96362		9'59410		30					10	9'95801		9'62255		50	20
	40	9'96349		9'59484		20					20	9'95786		9'62323		40	
32	50	9'96335		9'59558		10	m				30	9'95772		9'62391		30	
33	0	9'96322		9'59632		0	27			m	40	9'95757		9'62459		20	
m	10	9'96308		9'59705		50	26			39	50	9'95742		9'62527		10	m
33	20	9'96294		9'59778		40	26			40	0	9'95728		9'62595		0	20
h h		b c		a d		h h				h h		b c		a d		h h	
7 & 19		a ¹	d ¹	b ¹	c ¹	4 & 16				7 & 19		a ¹	d ¹	b ¹	c ¹	4 & 16	

h h		a d		b c		h h		h h		a d		b c		h h	
1 & 13		b ¹	c ¹	a ¹	d ¹	10 & 22		1 & 13		b ¹	c ¹	a ¹	d ¹	10 & 22	
m	s			s	m			m	s			s	m		
40	0	9'95728		9'62595	0 20			46	40	9'95116		9'65205	20 13		
	10	9'95713		9'62662	50 19			46	50	9'95100		9'65268	10		
	20	9'95698		9'62730	40			47	0	9'95084		9'65331	0 13		
	30	9'95683		9'62797	30				10	9'95068		9'65393	50 12		
	40	9'95668		9'62865	20				20	9'95052		9'65456	40		
40	50	9'95654		9'62932	10				30	9'95036		9'65518	30		
41	0	9'95639		9'62999	0 19			40		9'95020		9'65580	20		
	10	9'95624		9'63066	50 18			47	50	9'95004		9'65643	10		
	20	9'95609		9'63133	40			48	0	9'94988		9'65705	0 12		
	30	9'95594		9'63199	30				10	9'94972		9'65767	50 11		
	40	9'95579		9'63266	20				20	9'94956		9'65828	40		
41	50	9'95564		9'63332	10				30	9'94940		9'65890	30		
42	0	9'95549		9'63398	0 18			40		9'94923		9'65952	20		
	10	9'95534		9'63465	50 17			48	50	9'94907		9'66013	10		
	20	9'95519		9'63531	40			49	0	9'94891		9'66075	0 11		
	30	9'95504		9'63597	30				10	9'94875		9'66136	50 10		
	40	9'95488		9'63662	20				20	9'94858		9'66197	40		
42	50	9'95473		9'63728	10				30	9'94842		9'66258	30		
43	0	9'95458		9'63794	0 17			40		9'94826		9'66319	20		
	10	9'95443		9'63859	50 16			49	50	9'94809		9'66380	10		
	20	9'95427		9'63924	40			50	0	9'94793		9'66441	0 10		
	30	9'95412		9'63989	30				10	9'94776		9'66501	50 9		
	40	9'95397		9'64054	20				20	9'94760		9'66562	40		
43	50	9'95381		9'64119	10				30	9'94743		9'66622	30		
44	0	9'95366		9'64184	0 16			40		9'94727		9'66682	20		
	10	9'95351		9'64249	50 15			50	50	9'94710		9'66743	10		
	20	9'95335		9'64313	40			51	0	9'94694		9'66803	0 9		
	30	9'95320		9'64378	30				10	9'94677		9'66863	50 8		
	40	9'95304		9'64442	20				20	9'94660		9'66923	40		
44	50	9'95289		9'64506	10				30	9'94644		9'66982	30		
45	0	9'95273		9'64571	0 15			40		9'94627		9'67042	20		
	10	9'95257		9'64635	50 14			51	50	9'94610		9'67101	10		
	20	9'95242		9'64698	40			52	0	9'94593		9'67161	0 8		
	30	9'95226		9'64762	30				10	9'94577		9'67220	50 7		
	40	9'95211		9'64826	20				20	9'94560		9'67280	40		
45	50	9'95195		9'64889	10				30	9'94543		9'67339	30		
46	0	9'95179		9'64953	0 14			40		9'94526		9'67398	20		
	10	9'95163		9'65016	50 13			52	50	9'94509		9'67457	10 m		
	20	9'95148		9'65079	40			53	0	9'94492		9'67515	0 7		
	30	9'95132		9'65142	30 m			m	10	9'94475		9'67574	50 6		
m	40	9'95116		9'65205	20 13			53	20	9'94458		9'67633	40 6		
h h		b c		a d		h h		h h		b c		a d		h h	
7 & 19		a ¹	d ¹	b ¹	c ¹	4 & 16		7 & 19		a ¹	d ¹	b ¹	c ¹	4 & 16	

h h 1 & 13		a d b ¹ c ¹	b c a ¹ d ¹	h h 10 & 22		h h 2 & 14		a d b ¹ c ¹	b c a ¹ d ¹	h h 9 & 21	
m	s			s	m	m	s			s	m
53	20	9'94458	9'67633	40	6	0	0	9'93753	9'69897	0	60
	30	9'94441	9'67691	30			10	9'93735	9'69952	50	59
	40	9'94424	9'67750	20			20	9'93717	9'70006	40	
53	50	9'94407	9'67808	10			30	9'93698	9'70061	30	
54	0	9'94390	9'67866	0	6		40	9'93680	9'70115	20	
	10	9'94373	9'67924	50	5	0	50	9'93662	9'70169	10	
	20	9'94355	9'67982	40		1	0	9'93603	9'70224	0	59
	30	9'94338	9'68040	30			10	9'93625	9'70278	50	58
	40	9'94321	9'68098	20			20	9'93606	9'70332	40	
54	50	9'94304	9'68156	10			30	9'93588	9'70386	30	
55	0	9'94286	9'68213	0	5		40	9'93569	9'70439	20	
	10	9'94269	9'68271	50	4	1	50	9'93551	9'70493	10	
	20	9'94252	9'68328	40		2	0	9'93532	9'70547	0	58
	30	9'94234	9'68386	30			10	9'93513	9'70600	50	57
	40	9'94217	9'68443	20			20	9'93495	9'70654	40	
55	50	9'94199	9'68500	10			30	9'93476	9'70707	30	
56	0	9'94182	9'68557	0	4		40	9'93457	9'70761	20	
	10	9'94164	9'68614	50	3	2	50	9'93439	9'70814	10	
	20	9'94147	9'68671	40		3	0	9'93420	9'70867	0	57
	30	9'94129	9'68728	30			10	9'93401	9'70920	50	56
	40	9'94112	9'68784	20			20	9'93382	9'70973	40	
56	50	9'94094	9'68841	10			30	9'93363	9'71026	30	
57	0	9'94076	9'68897	0	3		40	9'93344	9'71079	20	
	10	9'94059	9'68954	50	2	3	50	9'93326	9'71131	10	
	20	9'94041	9'69010	40		4	0	9'93307	9'71184	0	56
	30	9'94023	9'69066	30			10	9'93288	9'71236	50	55
	40	9'94005	9'69122	20			20	9'93269	9'71289	40	
57	50	9'93988	9'69178	10			30	9'93249	9'71341	30	
58	0	9'93970	9'69234	0	2		40	9'93230	9'71393	20	
	10	9'93952	9'69290	50	1	4	50	9'93211	9'71446	10	
	20	9'93934	9'69345	40		5	0	9'93192	9'71498	0	55
	30	9'93916	9'69401	30			10	9'93173	9'71550	50	54
	40	9'93898	9'69456	20			20	9'93154	9'71602	40	
58	50	9'93880	9'69512	10			30	9'93135	9'71654	30	
59	0	9'93862	9'69567	0	1		40	9'93115	9'71705	20	
	10	9'93844	9'69622	50	0	5	50	9'93096	9'71757	10	
	20	9'93826	9'69677	40		6	0	9'93077	9'71809	0	54
	30	9'93808	9'69732	30			10	9'93057	9'71860	50	53
	40	9'93789	9'69787	20			20	9'93038	9'71911	40	
m	50	9'93771	9'69842	10	m	m	30	9'93018	9'71963	30	m
60	0	9'93753	9'69897	0	0	6	40	9'92999	9'72014	20	53
h h 7 & 19		b c a ¹ d ¹	a d b ¹ c ¹	h h 4 & 16		h h 8 & 20		b c a ¹ d ¹	a d b ¹ c ¹	h h 3 & 15	

h	h	a	d	b	c	h	h	h	h	a	d	b	c	h	h
2 & 14		b ¹	c ¹	a ¹	d ¹	9 & 21		2 & 14		b ¹	c ¹	a ¹	d ¹	9 & 21	
m	s					s	m	m	s					s	m
6	40	9'92999		9'72014		20	53	13	20	9'92194		9'73997		40	46
6	50	9'92979		9'72065		10			30	9'92173		9'74045		30	
7	0	9'92960		9'72116		0	53		40	9'92152		9'74093		20	
	10	9'92940		9'72167		50	52	13	50	9'92132		9'74141		10	
	20	9'92921		9'72218		40		14	0	9'92111		9'74189		0	46
	30	9'92901		9'72269		30			10	9'92090		9'74237		50	45
	40	9'92881		9'72320		20			20	9'92069		9'74284		40	
7	50	9'92862		9'72370		10			30	9'92048		9'74332		30	
8	0	9'92842		9'72421		0	52		40	9'92027		9'74379		20	
	10	9'92822		9'72471		50	51	14	50	9'92006		9'74427		10	
	20	9'92803		9'72522		40		15	0	9'91985		9'74474		0	45
	30	9'92783		9'72572		30			10	9'91964		9'74521		50	44
	40	9'92763		9'72622		20			20	9'91942		9'74568		40	
8	50	9'92743		9'72673		10			30	9'91921		9'74615		30	
9	0	9'92723		9'72723		0	51		40	9'91900		9'74662		20	
	10	9'92703		9'72773		50	50	15	50	9'91879		9'74709		10	
	20	9'92683		9'72823		40		16	0	9'91857		9'74756		0	44
	30	9'92663		9'72873		30			10	9'91836		9'74803		50	43
	40	9'92643		9'72922		20			20	9'91815		9'74850		40	
9	50	9'92623		9'72972		10			30	9'91793		9'74896		30	
10	0	9'92603		9'73022		0	50		40	9'91772		9'74943		20	
	10	9'92583		9'73071		50	49	16	50	9'91750		9'74989		10	
	20	9'92563		9'73121		40		17	0	9'91729		9'75036		0	43
	30	9'92542		9'73170		30			10	9'91707		9'75082		50	42
	40	9'92522		9'73219		20			20	9'91686		9'75128		40	
10	50	9'92502		9'73269		10			30	9'91664		9'75175		30	
11	0	9'92482		9'73318		0	49		40	9'91643		9'75221		20	
	10	9'92461		9'73367		50	48	17	50	9'91621		9'75267		10	
	20	9'92441		9'73416		40		18	0	9'91599		9'75313		0	42
	30	9'92421		9'73465		30			10	9'91578		9'75359		50	41
	40	9'92400		9'73513		20			20	9'91556		9'75405		40	
11	50	9'92380		9'73562		10			30	9'91534		9'75450		30	
12	0	9'92359		9'73611		0	48		40	9'91512		9'75496		20	
	10	9'92339		9'73659		50	47	18	50	9'91490		9'75542		10	
	20	9'92318		9'73708		40		19	0	9'91469		9'75587		0	41
	30	9'92297		9'73756		30			10	9'91447		9'75633		50	40
	40	9'92277		9'73805		20			20	9'91425		9'75678		40	
12	50	9'92256		9'73853		10	m		30	9'91403		9'75724		30	
13	0	9'92235		9'73901		0	47	m	40	9'91381		9'75769		20	
m	10	9'92215		9'73949		50	46	19	50	9'91359		9'75814		10	m
13	20	9'92194		9'73997		40	46	20	0	9'91336		9'75859		0	40
h	h	b	c	a	d	h	h	h	h	b	c	a	d	h	h
8 & 20		a ¹	d ¹	b ¹	c ¹	3 & 15		8 & 20		a ¹	d ¹	b ¹	c ¹	3 & 15	

h	h	a	d	b	c	h	h	h	h	a	d	b	c	h	h
2 & 14		b'	c'	a'	d'	9 & 21		2 & 14		b'	c'	a'	d'	9 & 21	
m	s					s	m	m	s					s	m
20	0	9'91336		9'75859		0	40	26	40	9'90424		9'77609		20	33
	10	9'91314		9'75904		50	39	26	50	9'90401		9'77651		10	
	20	9'91292		9'75949		40		27	0	9'90377		9'77694		0	33
	30	9'91270		9'75994		30			10	9'90353		9'77736		50	32
	40	9'91248		9'76039		20			20	9'90330		9'77778		40	
20	50	9'91225		9'76084		10			30	9'90306		9'77820		30	
21	0	9'91203		9'76129		0	39		40	9'90282		9'77862		20	
	10	9'91181		9'76173		50	38	27	50	9'90259		9'77904		10	
	20	9'91158		9'76218		40		28	0	9'90235		9'77946		0	32
	30	9'91136		9'76262		30			10	9'90211		9'77988		50	31
	40	9'91114		9'76307		20			20	9'90187		9'78030		40	
21	50	9'91091		9'76351		10			30	9'90163		9'78072		30	
22	0	9'91069		9'76395		0	38		40	9'90139		9'78113		20	
	10	9'91046		9'76440		50	37	28	50	9'90115		9'78155		10	
	20	9'91023		9'76484		40		29	0	9'90091		9'78197		0	31
	30	9'91001		9'76528		30			10	9'90067		9'78238		50	30
	40	9'90978		9'76572		20			20	9'90043		9'78280		40	
22	50	9'90956		9'76616		10			30	9'90019		9'78321		30	
23	0	9'90933		9'76660		0	37		40	9'89995		9'78362		20	
	10	9'90910		9'76704		50	36	29	50	9'89971		9'78404		10	
	20	9'90887		9'76747		40		30	0	9'89947		9'78445		0	30
	30	9'90864		9'76791		30			10	9'89922		9'78486		50	29
	40	9'90842		9'76835		20			20	9'89898		9'78527		40	
23	50	9'90819		9'76878		10			30	9'89874		9'78568		30	
24	0	9'90796		9'76922		0	36		40	9'89849		9'78609		20	
	10	9'90773		9'76965		50	35	30	50	9'89825		9'78650		10	
	20	9'90750		9'77009		40		31	0	9'89801		9'78691		0	29
	30	9'90727		9'77052		30			10	9'89776		9'78731		50	28
	40	9'90704		9'77095		20			20	9'89752		9'78772		40	
24	50	9'90681		9'77138		10			30	9'89727		9'78813		30	
25	0	9'90657		9'77182		0	35		40	9'89702		9'78853		20	
	10	9'90634		9'77225		50	34	31	50	9'89678		9'78894		10	
	20	9'90611		9'77268		40		32	0	9'89653		9'78934		0	28
	30	9'90588		9'77310		30			10	9'89629		9'78975		50	27
	40	9'90565		9'77353		20			20	9'89604		9'79015		40	
25	50	9'90541		9'77396		10			30	9'89579		9'79055		30	
26	0	9'90518		9'77439		0	34		40	9'89554		9'79095		20	
	10	9'90494		9'77482		50	33	32	50	9'89529		9'79136		10	m
	20	9'90471		9'77524		40		33	0	9'89505		9'79176		0	27
m	30	9'90448		9'77567		30	m		10	9'89480		9'79216		50	26
26	40	9'90424		9'77609		20	33		20	9'89455		9'79256		40	26
h	h	b	c	a	d	h	h	h	h	b	c	a	d	h	h
8 & 20		a'	d'	b'	c'	8 & 16		8 & 20		a'	d'	b'	c'	8 & 16	

h h 2 & 14		a d b ¹ c ¹		b c a ¹ d ¹		h h 9 & 21		h h 2 & 14		a d b ¹ c ¹		b c a ¹ d ¹		h h 9 & 21	
m s						s m		m s						s m	
33	20	9'89455		9'79256		40	26	40	0	9'88425		9'80807		0	20
	30	9'89430		9'79296		30			10	9'88399		9'80844		50	19
	40	9'89405		9'79335		20			20	9'88372		9'80882		40	
33	50	9'89380		9'79375		10			30	9'88346		9'80919		30	
34	0	9'89354		9'79415	0 26				40	9'88319		9'80957		20	
	10	9'89329		9'79455	50 25			40	50	9'88292		9'80994		10	
	20	9'89304		9'79494	40			41	0	9'88266		9'81032	0 19		
	30	9'89279		9'79534	30				10	9'88239		9'81069	50 18		
	40	9'89254		9'79573	20				20	9'88212		9'81106	40		
34	50	9'89228		9'79613	10				30	9'88185		9'81143	30		
35	0	9'89203		9'79652	0 25				40	9'88158		9'81180	20		
	10	9'89178		9'79691	50 24			41	50	9'88132		9'81217	10		
	20	9'89152		9'79731	40			42	0	9'88105		9'81254	0 18		
	30	9'89127		9'79770	30				10	9'88078		9'81291	50 17		
	40	9'89101		9'79809	20				20	9'88051		9'81328	40		
35	50	9'89076		9'79848	10				30	9'88023		9'81365	30		
36	0	9'89050		9'79887	0 24				40	9'87996		9'81402	20		
	10	9'89025		9'79926	50 23			42	50	9'87969		9'81439	10		
	20	9'88999		9'79965	40			43	0	9'87942		9'81475	0 17		
	30	9'88973		9'80004	30				10	9'87915		9'81512	50 16		
	40	9'88948		9'80043	20				20	9'87887		9'81549	40		
36	50	9'88922		9'80081	10				30	9'87860		9'81585	30		
37	0	9'88896		9'80120	0 23				40	9'87833		9'81622	20		
	10	9'88870		9'80159	50 22			43	50	9'87805		9'81658	10		
	20	9'88844		9'80197	40			44	0	9'87778		9'81694	0 16		
	30	9'88819		9'80236	30				10	9'87751		9'81731	50 15		
	40	9'88793		9'80274	20				20	9'87723		9'81767	40		
37	50	9'88767		9'80313	10				30	9'87695		9'81803	30		
38	0	9'88741		9'80351	0 22				40	9'87668		9'81839	20		
	10	9'88715		9'80389	50 21			44	50	9'87640		9'81875	10		
	20	9'88688		9'80428	40			45	0	9'87613		9'81911	0 15		
	30	9'88662		9'80466	30				10	9'87585		9'81947	50 14		
	40	9'88636		9'80504	20				20	9'87557		9'81983	40		
38	50	9'88610		9'80542	10				30	9'87529		9'82019	30		
39	0	9'88584		9'80580	0 21				40	9'87501		9'82055	20		
	10	9'88557		9'80618	50 20			45	50	9'87474		9'82091	10		
	20	9'88531		9'80656	40			46	0	9'87446		9'82126	0 14		
	30	9'88505		9'80694	30				10	9'87418		9'82162	50 13		
	40	9'88478		9'80731	20				20	9'87390		9'82198	40		
m								m							
39	50	9'88452		9'80769	10 m				30	9'87362		9'82233	30 m		
40	0	9'88425		9'80807	0 20			46	40	9'87334		9'82269	20 13		
h h 8 & 20		b c a ¹ d ¹		a d b ¹ c ¹		h h 8 & 16		h h 8 & 20		b c a ¹ d ¹		a d b ¹ c ¹		h h 8 & 16	

h h 2 & 14		a d b ¹ c ¹		b c a ¹ d ¹		h h 9 & 21		h h 2 & 14		a d b ¹ c ¹		b c a ¹ d ¹		h h 9 & 21	
m	s					s	m	m	s					s	m
46	40	9'87334		9'82269		20	13	53	20	9'86176		9'83648		40	6
46	50	9'87305		9'82304		10			30	9'86146		9'83681		30	
47	0	9'87277		9'82340		0	13		40	9'86116		9'83715		20	
	10	9'87249		9'82375		50	12	53	50	9'86086		9'83748		10	
	20	9'87221		9'82410		40		54	0	9'86056		9'83781		0	6
	30	9'87192		9'82446		30			10	9'86026		9'83814		50	5
	40	9'87164		9'82481		20			20	9'85996		9'83848		40	
47	50	9'87136		9'82516		10			30	9'85966		9'83881		30	
48	0	9'87107		9'82551		0	12		40	9'85936		9'83914		20	
	10	9'87079		9'82586		50	11	54	50	9'85906		9'83947		10	
	20	9'87050		9'82621		40		55	0	9'85876		9'83980		0	5
	30	9'87022		9'82656		30			10	9'85845		9'84013		50	4
	40	9'86993		9'82691		20			20	9'85815		9'84046		40	
48	50	9'86965		9'82726		10			30	9'85785		9'84079		30	
49	0	9'86936		9'82761		0	11		40	9'85754		9'84112		20	
	10	9'86907		9'82795		50	10	55	50	9'85724		9'84144		10	
	20	9'86879		9'82830		40		56	0	9'85693		9'84177		0	4
	30	9'86850		9'82865		30			10	9'85663		9'84210		50	3
	40	9'86821		9'82899		20			20	9'85632		9'84242		40	
49	50	9'86792		9'82934		10			30	9'85602		9'84275		30	
50	0	9'86763		9'82968		0	10		40	9'85571		9'84308		20	
	10	9'86734		9'83003		50	9	56	50	9'85540		9'84340		10	
	20	9'86705		9'83037		40		57	0	9'85510		9'84373		0	3
	30	9'86676		9'83072		30			10	9'85479		9'84405		50	2
	40	9'86647		9'83106		20			20	9'85448		9'84437		40	
50	50	9'86618		9'83140		10			30	9'85417		9'84470		30	
51	0	9'86589		9'83174		0	9		40	9'85386		9'84502		20	
	10	9'86559		9'83208		50	8	57	50	9'85355		9'84534		10	
	20	9'86530		9'83242		40		58	0	9'85324		9'84566		0	2
	30	9'86501		9'83277		30			10	9'85293		9'84598		50	1
	40	9'86472		9'83311		20			20	9'85262		9'84630		40	
51	50	9'86442		9'83344		10			30	9'85231		9'84662		30	
52	0	9'86413		9'83378		0	8		40	9'85200		9'84694		20	
	10	9'86383		9'83412		50	7	58	50	9'85169		9'84726		10	
	20	9'86354		9'83446		40			0	9'85137		9'84758		0	1
	30	9'86324		9'83480		30			10	9'85106		9'84790		50	0
	40	9'86295		9'83513		20			20	9'85074		9'84822		40	
52	50	9'86265		9'83547		10	m		30	9'85043		9'84854		30	
53	0	9'86235		9'83581		0	7		40	9'85012		9'84885		20	
m	10	9'86206		9'83614		50	6	m	50	9'84980		9'84917		10	m
53	20	9'86176		9'83648		40	6		60	9'84949		9'84949		0	0
h h 8 & 20		b c a ¹ d ¹		a d b ¹ c ¹		h h 8 & 15		h h 8 & 20		b c a ¹ d ¹		a d b ¹ c ¹		h h 8 & 15	

STAR-CONSTANT TABLES.

FROM THE EQUATOR TO DECLINATION 88° .

ARGUMENT DECLINATION

OR

N.P.D. FOR A SOUTHERN STAR,

N.P.D. Tables for Star Constants, 1880.

90° to 89°						90° to 91°					
sc=0.4875.						c'=1.30220.					
d'=0.00000.											
	a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'
0	8.82391	...	...	...	9.63736	30	8.82393	8.06697	6.76477	7.94084	9.63734
1	8.82391	6.58984	5.28764	6.46373	9.63736	31	8.82393	8.08121	6.77901	7.95508	9.63734
2	8.82391	6.89087	5.58867	6.76476	9.63736	32	8.82393	8.09500	6.79280	7.96887	9.63734
3	8.82391	7.06696	5.76476	6.94085	9.63736	33	8.82393	8.10836	6.80616	7.98223	9.63734
4	8.82391	7.19190	5.88970	7.06579	9.63736	34	8.82393	8.12133	6.81913	7.99520	9.63734
5	8.82391	7.28881	5.98661	7.16270	9.63736	35	8.82393	8.13392	6.83172	8.00779	9.63734
6	8.82391	7.36799	6.06579	7.24188	9.63736	36	8.82393	8.14615	6.84395	8.02002	9.63734
7	8.82391	7.43493	6.13273	7.30882	9.63736	37	8.82394	8.15805	6.85585	8.03192	9.63733
8	8.82391	7.49293	6.19073	7.36682	9.63736	38	8.82394	8.16964	6.86744	8.04350	9.63733
9	8.82391	7.54408	6.24188	7.41797	9.63736	39	8.82394	8.18092	6.87872	8.05478	9.63733
10	8.82391	7.58984	6.28764	7.46373	9.63736	40	8.82394	8.19192	6.88972	8.06578	9.63733
11	8.82391	7.63123	6.32903	7.50512	9.63736	41	8.82394	8.20264	6.90044	8.07650	9.63733
12	8.82391	7.66902	6.36682	7.54291	9.63736	42	8.82394	8.21311	6.91091	8.08696	9.63733
13	8.82391	7.70378	6.40158	7.57767	9.63736	43	8.82394	8.22333	6.92113	8.09718	9.63733
14	8.82391	7.73597	6.43377	7.60985	9.63736	44	8.82395	8.23331	6.93111	8.10717	9.63732
15	8.82391	7.76593	6.46373	7.63982	9.63736	45	8.82395	8.24307	6.94087	8.11693	9.63732
16	8.82391	7.79396	6.49176	7.66784	9.63736	46	8.82395	8.25262	6.95042	8.12647	9.63732
17	8.82392	7.82029	6.51809	7.69417	9.63735	47	8.82395	8.26196	6.95976	8.13581	9.63732
18	8.82392	7.84511	6.54291	7.71900	9.63735	48	8.82395	8.27111	6.96891	8.14495	9.63732
19	8.82392	7.86859	6.56639	7.74248	9.63735	49	8.82395	8.28006	6.97786	8.15391	9.63732
20	8.82392	7.89087	6.58867	7.76475	9.63735	50	8.82396	8.28884	6.98664	8.16268	9.63731
21	8.82392	7.91206	6.60986	7.78594	9.63735	51	8.82396	8.29744	6.99524	8.17128	9.63731
22	8.82392	7.93226	6.63006	7.80615	9.63735	52	8.82396	8.30587	7.00367	8.17971	9.63731
23	8.82392	7.95157	6.64937	7.82545	9.63735	53	8.82396	8.31415	7.01195	8.18798	9.63731
24	8.82392	7.97005	6.66785	7.84393	9.63735	54	8.82396	8.32227	7.02007	8.19610	9.63731
25	8.82392	7.98778	6.68558	7.86166	9.63735	55	8.82397	8.33024	7.02804	8.20407	9.63730
26	8.82392	8.00482	6.70262	7.87870	9.63735	56	8.82397	8.33806	7.03586	8.21189	9.63730
27	8.82392	8.02121	6.71901	7.89509	9.63735	57	8.82397	8.34575	7.04355	8.21958	9.63730
28	8.82392	8.03700	6.73480	7.91088	9.63735	58	8.82397	8.35331	7.05111	8.22713	9.63730
29	8.82393	8.05224	6.75004	7.92612	9.63734	59	8.82397	8.36073	7.05853	8.23456	9.63730
30	8.82393	8.06697	6.76477	7.94084	9.63734	60	8.82398	8.36803	7.06583	8.24186	9.63729
	a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'

Declination 0°.

The differences in this Table vary rapidly ; but the change of precession for a change of 30' in N.P.D. can never amount to 0.0002 and no interpolations are necessary except to secure accuracy in the fourth place of decimals in the value of c.

N.P.D. Tables for Star Constants, 1880.

89° to 88°		sc=0°48'5.		c'=1°3'02.20.		d'=0°0'00.00.		91° to 92°			
	a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'
0	8°82398	8°36803	7°06583	8°24186	9°63729	30	8°82406	8°54418	7°24198	8°41792	9°63721
1	8°82398	8°37521	7°07301	8°24903	9°63729	31	8°82406	8°54838	7°24678	8°42272	9°63721
2	8°82398	8°38227	7°08007	8°25609	9°63729	32	8°82407	8°55371	7°25153	8°42746	9°63720
3	8°82398	8°32923	7°08703	8°26304	9°63729	33	8°82407	8°55843	7°25623	8°43216	9°63720
4	8°82399	8°39607	7°09387	8°26988	9°63728	34	8°82407	8°56307	7°26087	8°43680	9°63720
5	8°82399	8°40280	7°10060	8°27661	9°63728	35	8°82408	8°56767	7°26547	8°44139	9°63719
6	8°82399	8°40943	7°10723	8°28324	9°63728	36	8°82408	8°57222	7°27002	8°44594	9°63719
7	8°82399	8°41597	7°11377	8°28977	9°63728	37	8°82408	8°57672	7°27452	8°45044	9°63719
8	8°82399	8°42240	7°12020	8°29621	9°63728	38	8°82409	8°58118	7°27898	8°45489	9°63718
9	8°82400	8°42874	7°12654	8°30255	9°63727	39	8°82409	8°58559	7°28339	8°45930	9°63718
10	8°82400	8°43499	7°13279	8°30879	9°63727	40	8°82409	8°58996	7°28776	8°46366	9°63718
11	8°82400	8°44116	7°13896	8°31495	9°63727	41	8°82410	8°59428	7°29208	8°46799	9°63717
12	8°82401	8°44723	7°14503	8°32103	9°63726	42	8°82410	8°59856	7°29636	8°47226	9°63717
13	8°82401	8°45322	7°15102	8°32702	9°63726	43	8°82410	8°60280	7°30060	8°47650	9°63717
14	8°82401	8°45913	7°15693	8°33292	9°63726	44	8°82411	8°60700	7°30480	8°48069	9°63716
15	8°82401	8°46497	7°16277	8°33875	9°63726	45	8°82411	8°61116	7°30896	8°48485	9°63716
16	8°82402	8°47072	7°16852	8°34450	9°63725	46	8°82412	8°61528	7°31308	8°48896	9°63715
17	8°82402	8°47640	7°17420	8°35018	9°63725	47	8°82412	8°61936	7°31716	8°49304	9°63715
18	8°82402	8°48201	7°17981	8°35578	9°63725	48	8°82412	8°62340	7°32120	8°49708	9°63715
19	8°82402	8°48754	7°18534	8°36131	9°63725	49	8°82413	8°62741	7°32521	8°50108	9°63714
20	8°82403	8°49300	7°19080	8°36678	9°63724	50	8°82413	8°63138	7°32918	8°50504	9°63714
21	8°82403	8°49840	7°19620	8°37217	9°63724	51	8°82414	8°63531	7°33311	8°50897	9°63713
22	8°82403	8°50373	7°20153	8°37750	9°63724	52	8°82414	8°63921	7°33701	8°51287	9°63713
23	8°82404	8°50900	7°20680	8°38276	9°63723	53	8°82414	8°64307	7°34087	8°51673	9°63712
24	8°82404	8°51420	7°21200	8°38796	9°63723	54	8°82415	8°64690	7°34470	8°52055	9°63712
25	8°82404	8°51934	7°21714	8°39310	9°63723	55	8°82415	8°65070	7°34850	8°52434	9°63712
26	8°82405	8°52443	7°22223	8°39818	9°63722	56	8°82416	8°65446	7°35226	8°52810	9°63711
27	8°82405	8°52945	7°22725	8°40320	9°63722	57	8°82416	8°65819	7°35599	8°53183	9°63711
28	8°82405	8°53441	7°23221	8°40816	9°63722	58	8°82417	8°66189	7°35969	8°53552	9°63710
29	8°82406	8°53932	7°23712	8°41307	9°63721	59	8°82417	8°66556	7°36336	8°53919	9°63710
30	8°82406	8°54418	7°24198	8°41792	9°63721	60	8°82417	8°66919	7°36699	8°54282	9°63710
	a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'

Declination 1°.

Diff. 0.00718.

Diff. 0.00480.

1	12	11	132	21	251	1	8	11	88	21	169
2	24	12	144	22	263	2	16	12	96	22	176
3	36	13	156	23	275	3	24	13	104	23	184
4	48	14	168	24	287	4	32	14	112	24	192
5	60	15	180	25	299	5	40	15	120	25	200
6	72	16	191	26	311	6	48	16	128	26	208
7	84	17	203	27	323	7	56	17	136	27	216
8	96	18	215	28	335	8	64	18	144	28	224
9	108	19	227	29	347	9	72	19	152	29	232
10	120	20	239	30	359	10	80	20	160	30	240

N.P.D. Tables for Star Constants, 1880.

88° to 87°		ac=0°48'5".		c'=1°30'22".		d'=0°00'00".		92° to 93°			
	a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'
0	8°24'17	8°66'19	7°36'69	8°54'28	9°63'71	30	8°24'32	8°76'62	7°46'40	8°63'96	9°63'69
1	8°24'18	8°67'28	7°37'06	8°54'42	9°63'70	31	8°24'33	8°76'09	7°46'68	8°64'56	9°63'69
2	8°24'18	8°67'38	7°37'41	8°54'99	9°63'70	32	8°24'33	8°77'19	7°46'97	8°64'54	9°63'69
3	8°24'19	8°67'93	7°37'77	8°55'35	9°63'70	33	8°24'34	8°77'48	7°47'26	8°64'82	9°63'69
4	8°24'19	8°68'34	7°38'12	8°55'70	9°63'70	34	8°24'35	8°77'65	7°47'54	8°65'10	9°63'69
5	8°24'20	8°68'64	7°38'47	8°56'05	9°63'70	35	8°24'35	8°78'04	7°47'82	8°65'39	9°63'69
6	8°24'20	8°69'04	7°38'82	8°56'40	9°63'70	36	8°24'36	8°78'32	7°48'10	8°65'67	9°63'69
7	8°24'21	8°69'38	7°39'16	8°56'74	9°63'70	37	8°24'36	8°78'60	7°48'38	8°65'94	9°63'69
8	8°24'21	8°69'72	7°39'50	8°57'08	9°63'70	38	8°24'37	8°78'88	7°48'66	8°66'22	9°63'69
9	8°24'22	8°70'06	7°39'84	8°57'42	9°63'70	39	8°24'37	8°79'15	7°48'93	8°66'49	9°63'69
10	8°24'22	8°70'39	7°40'19	8°57'77	9°63'70	40	8°24'38	8°79'42	7°49'20	8°66'76	9°63'68
11	8°24'23	8°70'72	7°40'52	8°58'08	9°63'70	41	8°24'39	8°79'69	7°49'47	8°67'03	9°63'68
12	8°24'23	8°71'06	7°40'82	8°58'41	9°63'70	42	8°24'39	8°79'96	7°49'74	8°67'30	9°63'68
13	8°24'24	8°71'39	7°41'17	8°58'74	9°63'70	43	8°24'40	8°80'23	7°50'01	8°67'57	9°63'68
14	8°24'24	8°71'71	7°41'49	8°59'07	9°63'70	44	8°24'40	8°80'50	7°50'28	8°67'84	9°63'68
15	8°24'24	8°72'03	7°41'81	8°59'39	9°63'70	45	8°24'41	8°80'76	7°50'54	8°68'10	9°63'68
16	8°24'25	8°72'36	7°42'14	8°59'71	9°63'70	46	8°24'42	8°81'02	7°51'08	8°68'36	9°63'68
17	8°24'25	8°72'67	7°42'45	8°60'03	9°63'70	47	8°24'42	8°81'28	7°51'06	8°68'62	9°63'68
18	8°24'26	8°72'99	7°42'77	8°60'34	9°63'70	48	8°24'43	8°81'54	7°51'32	8°68'88	9°63'68
19	8°24'27	8°73'30	7°43'08	8°60'66	9°63'70	49	8°24'43	8°81'80	7°51'58	8°69'14	9°63'68
20	8°24'27	8°73'62	7°43'40	8°60'97	9°63'70	50	8°24'44	8°82'06	7°51'84	8°69'40	9°63'68
21	8°24'28	8°73'93	7°43'70	8°61'28	9°63'69	51	8°24'45	8°82'31	7°52'09	8°69'65	9°63'68
22	8°24'28	8°74'27	7°44'01	8°61'58	9°63'69	52	8°24'45	8°82'57	7°52'35	8°69'90	9°63'68
23	8°24'29	8°74'54	7°44'32	8°61'89	9°63'68	53	8°24'46	8°82'52	7°52'05	8°70'15	9°63'68
24	8°24'29	8°74'84	7°44'62	8°62'19	9°63'68	54	8°24'47	8°83'07	7°52'58	8°70'40	9°63'68
25	8°24'30	8°75'14	7°44'92	8°62'47	9°63'67	55	8°24'47	8°83'32	7°53'10	8°70'65	9°63'68
26	8°24'30	8°75'44	7°45'22	8°62'79	9°63'67	56	8°24'48	8°83'57	7°53'35	8°70'90	9°63'67
27	8°24'31	8°75'74	7°45'52	8°63'09	9°63'66	57	8°24'49	8°83'19	7°53'59	8°71'15	9°63'67
28	8°24'31	8°76'07	7°45'81	8°63'38	9°63'66	58	8°24'49	8°84'06	7°53'44	8°71'39	9°63'67
29	8°24'32	8°76'32	7°46'10	8°63'67	9°63'65	59	8°24'50	8°84'30	7°54'08	8°71'63	9°63'67
30	8°24'32	8°76'62	7°46'40	8°63'96	9°63'65	60	8°24'51	8°84'55	7°54'33	8°71'88	9°63'66
	a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'

Declination 2°.

Diff. 0.00361.

Diff. 0.00289.

1	6	11	66	21	126	1	5	11	53	21	101
2	12	12	72	22	132	2	10	12	58	22	106
3	18	13	78	23	138	3	14	13	63	23	111
4	24	14	84	24	144	4	19	14	67	24	116
5	30	15	90	25	150	5	24	15	72	25	120
6	36	16	96	26	156	6	29	16	77	26	125
7	42	17	102	27	162	7	34	17	82	27	130
8	48	18	108	28	168	8	39	18	87	28	135
9	54	19	114	29	174	9	43	19	92	29	140
10	60	20	120	30	181	10	48	20	96	30	145

N.P.D. Tables for Star Constants, 1880.

87° to 88°						88° to 89°						89° to 90°						90° to 91°						91° to 92°						92° to 93°						93° to 94°																							
sc=0.4875.						c'=1.30220.						d'=0.00000.						sc=0.4875.						c'=1.30220.						d'=0.00000.						sc=0.4875.						c'=1.30220.						d'=0.00000.											
a=b						c						d						a'=b'						sa'						a=b						c						d						a'=b'						sa'					
0	8.82451	8.84551	7.54331	8.71880	9.63676	30	8.82472	8.91260	7.61040	8.78568	9.63655	60	8.82493	8.96158	7.65938	8.83446	9.63634	90	8.82514	8.97075	7.66855	8.84358	9.63630	120	8.82535	8.97992	7.67772	8.85270	9.63626	180	8.82556	8.98909	7.68687	8.86211	9.63622	240	8.82577	8.99826	7.69602	8.87152	9.63618	300	8.82598	9.00743	7.70517	8.88093	9.63614	360	8.82619	9.01660	7.71432	8.89034	9.63610						
1	8.82451	8.84792	7.54572	8.72120	9.63676	31	8.82473	8.91466	7.61246	8.78774	9.63654	61	8.82494	8.96343	7.66123	8.83630	9.63634	91	8.82515	8.97190	7.66972	8.84599	9.63626	121	8.82536	8.98107	7.67887	8.85540	9.63622	181	8.82557	8.99024	7.68802	8.86481	9.63618	241	8.82578	9.00041	7.69717	8.87422	9.63614	301	8.82599	9.01058	7.70632	8.88363	9.63610	361	8.82620	9.02075	7.71547	8.89304	9.63606						
2	8.82452	8.85031	7.54811	8.72359	9.63675	32	8.82474	8.91672	7.61452	8.78979	9.63653	62	8.82495	8.96527	7.66307	8.83813	9.63633	92	8.82516	8.97407	7.67807	8.84977	9.63624	122	8.82537	8.98324	7.68722	8.85901	9.63620	182	8.82558	8.99241	7.69637	8.86842	9.63616	242	8.82579	9.00258	7.70552	8.87783	9.63612	302	8.82600	9.01275	7.71467	8.88724	9.63608	362	8.82621	9.02292	7.72382	8.89665	9.63604						
3	8.82453	8.85270	7.55050	8.72597	9.63674	33	8.82475	8.91877	7.61657	8.79183	9.63653	63	8.82496	8.96913	7.66673	8.84177	9.63631	93	8.82517	8.97697	7.68207	8.85341	9.63622	123	8.82538	8.98614	7.69122	8.86265	9.63618	183	8.82559	8.99531	7.70037	8.87206	9.63614	243	8.82580	9.00548	7.70952	8.88147	9.63610	303	8.82601	9.01565	7.71867	8.89088	9.63606	363	8.82622	9.02582	7.72782	8.90029	9.63602						
4	8.82453	8.85507	7.55287	8.72834	9.63674	34	8.82475	8.92081	7.61861	8.79386	9.63652	64	8.82497	8.97302	7.67032	8.84691	9.63629	94	8.82518	8.98086	7.68572	8.85606	9.63620	124	8.82539	8.99003	7.69487	8.86530	9.63616	184	8.82560	9.00020	7.70402	8.87471	9.63612	244	8.82581	9.01037	7.71317	8.88412	9.63608	304	8.82602	9.02054	7.72232	8.89353	9.63604	364	8.82623	9.03071	7.73147	8.90294	9.63600						
5	8.82454	8.85743	7.55523	8.73069	9.63673	35	8.82476	8.92284	7.62064	8.79588	9.63651	65	8.82498	8.97519	7.67449	8.84986	9.63627	95	8.82519	8.98303	7.69017	8.85899	9.63618	125	8.82540	8.99220	7.70002	8.86823	9.63614	185	8.82561	9.00237	7.70917	8.87764	9.63610	245	8.82582	9.01254	7.71832	8.88705	9.63606	305	8.82603	9.02271	7.72747	8.89646	9.63602	365	8.82624	9.03288	7.73662	8.90587	9.63598						
6	8.82455	8.85977	7.55757	8.73303	9.63672	36	8.82477	8.92486	7.62266	8.79789	9.63650	66	8.82499	8.97910	7.67654	8.85160	9.63624	96	8.82520	8.98694	7.69196	8.86014	9.63615	126	8.82541	8.99601	7.70111	8.86948	9.63611	186	8.82562	9.00618	7.71026	8.87889	9.63607	246	8.82583	9.01635	7.71941	8.88830	9.63603	306	8.82604	9.02652	7.72856	8.89771	9.63599	366	8.82625	9.03669	7.73771	8.90712	9.63595						
7	8.82455	8.86211	7.55991	8.73535	9.63672	37	8.82478	8.92687	7.62467	8.79990	9.63649	67	8.82500	8.98131	7.68033	8.85471	9.63621	97	8.82521	8.98915	7.69584	8.86325	9.63612	127	8.82542	8.99828	7.70099	8.87192	9.63608	187	8.82563	9.00845	7.71014	8.88133	9.63604	247	8.82584	9.01862	7.71929	8.89074	9.63600	307	8.82605	9.02879	7.72844	8.90015	9.63596	367	8.82626	9.03896	7.73759	8.90956	9.63592						
8	8.82456	8.86443	7.56223	8.73767	9.63671	38	8.82478	8.92888	7.62668	8.80189	9.63649	68	8.82501	8.98342	7.68234	8.85682	9.63617	98	8.82522	8.99126	7.69785	8.86536	9.63608	128	8.82543	9.00039	7.70214	8.87203	9.63604	188	8.82564	9.01056	7.71129	8.88144	9.63600	248	8.82585	9.02073	7.72044	8.89086	9.63596	308	8.82606	9.03090	7.72959	8.90027	9.63592	368	8.82627	9.04107	7.73874	8.90968	9.63588						
9	8.82457	8.86674	7.56454	8.73997	9.63670	39	8.82479	8.93087	7.62867	8.80388	9.63648	69	8.82502	8.98546	7.68461	8.85983	9.63613	99	8.82523	8.99330	7.70336	8.86837	9.63604	129	8.82544	9.00243	7.70351	8.87224	9.63600	189	8.82565	9.01260	7.71266	8.88165	9.63596	249	8.82586	9.02277	7.72171	8.89107	9.63592	309	8.82607	9.03294	7.73086	8.90048	9.63588	369	8.82628	9.04311	7.73991	8.90989	9.63584						
10	8.82457	8.86903	7.56683	8.74226	9.63670	40	8.82480	8.93285	7.63065	8.80585	9.63647	70	8.82503	8.98769	7.68650	8.86087	9.63609	100	8.82524	8.99553	7.70547	8.86941	9.63599	130	8.82545	9.00470	7.70562	8.87235	9.63595	190	8.82566	9.01487	7.71477	8.88176	9.63591	250	8.82587	9.02504	7.72392	8.89118	9.63587	310	8.82608	9.03521	7.73307	8.90059	9.63583	370	8.82629	9.04538	7.74222	8.90999	9.63579						
11	8.82458	8.87132	7.56912	8.74454	9.63669	41	8.82481	8.93483	7.63263	8.80782	9.63647	71	8.82504	8.98990	7.69039	8.86190	9.63605	101	8.82525	9.00376	7.70762	8.87044	9.63595	131	8.82546	9.01293	7.70777	8.87338	9.63591	191	8.82567	9.02310	7.71692	8.88180	9.63587	251	8.82588	9.03327	7.72607	8.89122	9.63583	311	8.82609	9.04344	7.73522	8.90060	9.63579	371	8.82630	9.05361	7.74437	8.90999	9.63575						
12	8.82459	8.87359	7.57139	8.74680	9.63668	42	8.82482	8.93679	7.63459	8.80978	9.63645	72	8.82505	8.99199	7.69245	8.86392	9.63601	102	8.82526	9.00590	7.70977	8.87198	9.63591	132	8.82547	9.01507	7.70992	8.87492	9.63587	192	8.82568	9.02524	7.71907	8.88129	9.63583	252	8.82589	9.03541	7.72822	8.89134	9.63579	312	8.82610	9.04558	7.73737	8.90070	9.63575	372	8.82631	9.05575	7.74652	8.91009	9.63571						
13	8.82459	8.87585	7.57365	8.74906	9.63668	43	8.82482	8.93875	7.63655	8.81173	9.63645	73	8.82506	8.99400	7.69431	8.86593	9.63603	103	8.82527	9.00779	7.71172	8.87352	9.63587	133	8.82548	9.01696	7.71187	8.87787	9.63583	193	8.82569	9.02721	7.72092	8.88220	9.63579	253	8.82590	9.03738	7.73007	8.89165	9.63575	313	8.82611	9.04755	7.73922	8.90081	9.63571	373	8.82632	9.05782	7.74837	8.91019	9.63567						
14	8.82460	8.87810	7.57590	8.75130	9.63667	44	8.82483	8.94070	7.63850	8.81367	9.63644	74	8.82507	8.99619	7.69617	8.86794	9.63601	104	8.82528	9.01018	7.71367	8.87507	9.63583	134	8.82549	9.01935	7.71382	8.87922	9.63579	194	8.82570	9.02969	7.72287	8.88385	9.63575	254	8.82591	9.03986	7.73202	8.89229	9.63571	314	8.82612	9.05003	7.74117	8.90112	9.63567	374	8.82633	9.06020	7.75032	8.91050	9.63563						
15	8.82461	8.88034	7.57814	8.75353	9.63666	45	8.82484	8.94264	7.64044	8.81560	9.63643	75	8.82508	9.00148	7.70152	8.86985	9.63603	105	8.82529	9.01337	7.71552	8.87819	9.63583	135	8.82550	9.02254	7.71567	8.88206	9.63579	195	8.82571	9.03296	7.72457	8.88688	9.63575	255	8.82592	9.04313	7.73372	8.89330	9.63571	315	8.82613	9.05330	7.74287	8.90126	9.63567	375	8.82634	9.06347	7.75192	8.91064	9.63563						
16	8.82462	8.88256	7.58036	8.75575	9.63665	46	8.82485	8.94457	7.64237	8.81752	9.63642	76	8.82509	9.00367	7.70347	8.87190	9.63601	106	8.82530	9.01556	7.71747	8.88024	9.63583	136	8.82551	9.02473	7.71762	8.88313	9.63579	196	8.82572	9.03525	7.72647	8.88900	9.63575	256	8.82593	9.04542	7.73562	8.89442	9.63571	316	8.82614	9.05559	7.74477	8.90140	9.63567	376	8.82635	9.06576	7.75382	8.91078	9.63563						
17	8.82462	8.88478	7.58258	8.75795	9.63665	47	8.82486	8.94649	7.64429	8.81944	9.63641	77	8.82510	9.00586	7.70532	8.87381	9.63601	107	8.82531	9.01775	7.71932	8.88214	9.63583	137	8.82552	9.02692	7.71947	8.88432	9.63579	197	8.82573	9.03747	7.72847	8.89116	9.63575	257	8.82594	9.04764	7.73762	8.89558	9.63571	317	8.82615	9.05781	7.74677	8.90152	9.63567	377	8.82636	9.06798	7.75582	8.91090	9.63563						
18	8.82463	8.88698	7.58478	8.76015	9.63664	48	8.82487	8.94841	7.64621	8.82134	9.63640	78	8.82511	9.00795	7.70727	8.87572	9.63601	108	8.82532	9.01984	7.72132	8.88326	9.63583	138	8.82553	9.02901	7.72147	8.88541	9.63579	198	8.82574	9.03992	7.73047	8.89200	9.63575	258	8.82595	9.05009	7.73962	8.89642	9.63571	318	8.82616	9.06026	7.74877	8.90168	9.63567	378	8.82637	9.07043	7.75802	8.91106	9.63563						
19	8.82464	8.88917	7.58697	8.76234	9.63663	49	8.82487	8.95031	7.64811	8.82324	9.63640	79	8.82512	9.00984	7.70917	8.87764	9.63601	109	8.82533	9.02173	7.72317	8.88439	9.63583	139	8.82554	9.03090	7.72332	8.88650	9.63579	199	8.82575	9.04180	7.73227																										

Declination 3°.

Diff. 0.00241.

Diff. 0.00206.

1	4	11	44	21	84	1	3	11	38	21	72
2	8	12	48	22	88	2	7	12	41	22	76
3	12	13	52	23	92	3	10	13	45	23	79
4	16	14	56	24	96	4	14	14	48	24	82
5	20	15	60	25	100	5	17	15	51	25	85
6	24	16	64	26	104	6	21	16	55	26	89
7	28	17	68	27	108	7	24	17	58	27	93
8	32	18	72	28	112	8	27	18	62	28	96
9	36	19	76	29	116	9	31	19	65	29	100
10	40	20	80	30	121	10	34	20	69	30	103

N.P.D. Tables for Star Constants, 1880.

86° to 85°		sc=0°4875.		cl=1°30220.		dl=0°00000.		94° to 95°			
	a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'
0	8-82497	8-97075	7-66855	8-84358	9-63630	30	8-82525	9-02209	7-71989	8-89464	9-63602
1	8-82498	8-97257	7-67037	8-84539	9-63629	31	8-82526	9-02371	7-72151	8-89625	9-63601
2	8-82499	8-97437	7-67217	8-84718	9-63628	32	8-82527	9-02531	7-72311	8-89784	9-63600
3	8-82500	8-97617	7-67397	8-84897	9-63627	33	8-82528	9-02691	7-72471	8-89943	9-63599
4	8-82500	8-97796	7-67576	8-85075	9-63627	34	8-82529	9-02851	7-72631	8-90102	9-63598
5	8-82501	8-97974	7-67754	8-85252	9-63626	35	8-82530	9-03010	7-72790	8-90260	9-63597
6	8-82502	8-98151	7-67931	8-85429	9-63625	36	8-82531	9-03168	7-72948	8-90417	9-63596
7	8-82503	8-98328	7-68108	8-85605	9-63624	37	8-82532	9-03326	7-73106	8-90574	9-63595
8	8-82504	8-98504	7-68284	8-85780	9-63623	38	8-82533	9-03483	7-73263	8-90730	9-63594
9	8-82505	8-98680	7-68460	8-85955	9-63622	39	8-82534	9-03640	7-73420	8-90885	9-63593
10	8-82506	8-98854	7-68634	8-86128	9-63621	40	8-82535	9-03796	7-73576	8-91040	9-63592
11	8-82507	8-99028	7-68808	8-86301	9-63620	41	8-82536	9-03951	7-73731	8-91195	9-63591
12	8-82508	8-99202	7-68982	8-86474	9-63619	42	8-82537	9-04106	7-73886	8-91349	9-63590
13	8-82509	8-99374	7-69154	8-86645	9-63618	43	8-82538	9-04261	7-74041	8-91502	9-63589
14	8-82510	8-99546	7-69326	8-86816	9-63617	44	8-82539	9-04414	7-74194	8-91655	9-63588
15	8-82511	8-99717	7-69497	8-86987	9-63616	45	8-82540	9-04568	7-74348	8-91807	9-63587
16	8-82512	8-99888	7-69668	8-87156	9-63615	46	8-82541	9-04721	7-74501	8-91959	9-63586
17	8-82512	9-00058	7-69838	8-87325	9-63615	47	8-82542	9-04873	7-74653	8-92110	9-63584
18	8-82513	9-00227	7-70007	8-87494	9-63614	48	8-82543	9-05025	7-74805	8-92261	9-63583
19	8-82514	9-00396	7-70176	8-87661	9-63613	49	8-82545	9-05176	7-74956	8-92411	9-63582
20	8-82515	9-00564	7-70344	8-87829	9-63612	50	8-82546	9-05327	7-75107	8-92561	9-63581
21	8-82516	9-00731	7-70511	8-87995	9-63611	51	8-82547	9-05477	7-75257	8-92710	9-63580
22	8-82517	9-00898	7-70678	8-88161	9-63610	52	8-82548	9-05627	7-75407	8-92859	9-63579
23	8-82518	9-01064	7-70844	8-88326	9-63609	53	8-82549	9-05776	7-75556	8-93007	9-63578
24	8-82519	9-01229	7-71009	8-88490	9-63608	54	8-82550	9-05924	7-75704	8-93154	9-63577
25	8-82520	9-01394	7-71174	8-88654	9-63607	55	8-82551	9-06073	7-75853	8-93301	9-63576
26	8-82521	9-01559	7-71339	8-88817	9-63606	56	8-82552	9-06220	7-76000	8-93448	9-63575
27	8-82522	9-01722	7-71502	8-88980	9-63605	57	8-82553	9-06367	7-76147	8-93594	9-63574
28	8-82523	9-01885	7-71665	8-89142	9-63604	58	8-82554	9-06514	7-76294	8-93740	9-63573
29	8-82524	9-02048	7-71828	8-89304	9-63603	59	8-82555	9-06660	7-76440	8-93885	9-63572
30	8-82525	9-02209	7-71989	8-89464	9-63602	60	8-82557	9-06806	7-76586	8-94030	9-63570
	a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'

Declination 4°.

Diff. 0.00182.

Diff. 0.00162.

1	3	11	33	21	64	1	3	11	30	21	57
2	6	12	36	22	67	2	5	12	32	22	59
3	9	13	39	23	70	3	8	13	35	23	62
4	12	14	42	24	73	4	11	14	38	24	65
5	15	15	45	25	76	5	14	15	41	25	68
6	18	16	48	26	79	6	16	16	43	26	70
7	21	17	51	27	82	7	19	17	46	27	73
8	24	18	54	28	85	8	22	18	49	28	76
9	27	19	58	29	88	9	24	19	51	29	78
10	30	20	61	30	91	10	27	20	54	30	81

N.P.D. Tables for Star Constants, 1880.

85° to 84° $\kappa=0.4875.$ $c'=1.30220.$ $d'=0.00000.$ 95° to 96°											
	a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'
0	8.82557	9.06806	7.76586	8.94030	9.63570	30	8.82591	9.10969	7.80749	8.98157	9.63536
1	8.82558	9.06951	7.76731	8.94174	9.63569	31	8.82593	9.11101	7.80881	8.98288	9.63534
2	8.82559	9.07096	7.76876	8.94317	9.63568	32	8.82594	9.11233	7.81013	8.98419	9.63533
3	8.82560	9.07241	7.77021	8.94461	9.63567	33	8.82595	9.11364	7.81144	8.98549	9.63532
4	8.82561	9.07384	7.77164	8.94603	9.63566	34	8.82596	9.11495	7.81275	8.98679	9.63531
5	8.82562	9.07528	7.77308	8.94746	9.63565	35	8.82598	9.11626	7.81406	8.98808	9.63529
6	8.82563	9.07671	7.77451	8.94887	9.63564	36	8.82599	9.11756	7.81536	8.98937	9.63528
7	8.82564	9.07813	7.77593	8.95029	9.63563	37	8.82600	9.11886	7.81666	8.99066	9.63527
8	8.82566	9.07955	7.77735	8.95170	9.63561	38	8.82601	9.12016	7.81796	8.99194	9.63526
9	8.82567	9.08097	7.77877	8.95310	9.63560	39	8.82603	9.12145	7.81925	8.99322	9.63524
10	8.82568	9.08238	7.78018	8.95450	9.63559	40	8.82604	9.12273	7.82053	8.99450	9.63523
11	8.82569	9.08378	7.78158	8.95589	9.63558	41	8.82605	9.12402	7.82182	8.99577	9.63522
12	8.82570	9.08519	7.78299	8.95728	9.63557	42	8.82606	9.12530	7.82310	8.99704	9.63521
13	8.82571	9.08658	7.78438	8.95867	9.63556	43	8.82608	9.12657	7.82437	8.99830	9.63519
14	8.82572	9.08798	7.78578	8.96005	9.63555	44	8.82609	9.12785	7.82565	8.99956	9.63518
15	8.82574	9.08936	7.78716	8.96143	9.63553	45	8.82610	9.12912	7.82692	9.00082	9.63517
16	8.82575	9.09075	7.78855	8.96280	9.63552	46	8.82611	9.13038	7.82818	9.00207	9.63516
17	8.82576	9.09213	7.78993	8.96417	9.63551	47	8.82613	9.13164	7.82944	9.00332	9.63514
18	8.82577	9.09350	7.79130	8.96553	9.63550	48	8.82614	9.13290	7.83070	9.00456	9.63513
19	8.82578	9.09488	7.79268	8.96689	9.63549	49	8.82615	9.13416	7.83196	9.00581	9.63512
20	8.82579	9.09624	7.79404	8.96825	9.63548	50	8.82616	9.13541	7.83321	9.00704	9.63511
21	8.82581	9.09761	7.79541	8.96960	9.63546	51	8.82618	9.13666	7.83446	9.00828	9.63509
22	8.82582	9.09896	7.79676	8.97095	9.63545	52	8.82619	9.13790	7.83570	9.00951	9.63508
23	8.82583	9.10032	7.79812	8.97229	9.63544	53	8.82620	9.13914	7.83694	9.01074	9.63507
24	8.82584	9.10167	7.79947	8.97363	9.63543	54	8.82622	9.14038	7.83818	9.01196	9.63505
25	8.82585	9.10302	7.80082	8.97496	9.63542	55	8.82623	9.14161	7.83941	9.01318	9.63504
26	8.82587	9.10436	7.80216	8.97629	9.63540	56	8.82624	9.14284	7.84064	9.01440	9.63503
27	8.82588	9.10570	7.80350	8.97762	9.63539	57	8.82626	9.14407	7.84187	9.01561	9.63501
28	8.82589	9.10703	7.80483	8.97894	9.63538	58	8.82627	9.14529	7.84309	9.01682	9.63500
29	8.82590	9.10836	7.80616	8.98026	9.63537	59	8.82628	9.14651	7.84431	9.01803	9.63499
30	8.82591	9.10969	7.80749	8.98157	9.63536	60	8.82630	9.14773	7.84553	9.01923	9.63497
	a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'

Declination 5°.

Diff. 0.00145.

Diff. 0.00132.

1	2	11	27	21	51	1	2	11	24	21	46
2	5	12	29	22	53	2	4	12	26	22	48
3	7	13	31	23	56	3	7	13	29	23	51
4	10	14	34	24	58	4	9	14	31	24	53
5	12	15	36	25	60	5	11	15	33	25	55
6	14	16	39	26	63	6	13	16	35	26	57
7	17	17	41	27	65	7	15	17	37	27	59
8	19	18	43	28	68	8	18	18	40	28	62
9	22	19	46	29	70	9	20	19	42	29	64
10	24	20	48	30	73	10	22	20	44	30	66

N.P.D. Tables for Star Constants, 1880.

84° to 83°						86° to 87°					
sc=0.4875.						c ¹ =1.30220.					
d ¹ =0.00000											
	a=b	c	d	a ¹ =b ¹	sa ¹		a=b	c	d	a ¹ =b ¹	sa ¹
0	8.82630	9.14773	7.84553	9.01923	9.63497	30	8.82671	9.18277	7.88057	9.05386	9.63456
1	8.82631	9.14894	7.84674	9.02043	9.63496	31	8.82673	9.18389	7.88169	9.05497	9.63454
2	8.82632	9.15015	7.84795	9.02163	9.63495	32	8.82674	9.18501	7.88281	9.05607	9.63453
3	8.82634	9.15136	7.84916	9.02283	9.63493	33	8.82675	9.18613	7.88393	9.05717	9.63452
4	8.82635	9.15256	7.85036	9.02402	9.63492	34	8.82677	9.18724	7.88504	9.05827	9.63450
5	8.82636	9.15377	7.85157	9.02520	9.63491	35	8.82678	9.18835	7.88615	9.05937	9.63449
6	8.82638	9.15496	7.85276	9.02639	9.63489	36	8.82680	9.18946	7.88726	9.06046	9.63447
7	8.82639	9.15616	7.85396	9.02757	9.63488	37	8.82681	9.19056	7.88837	9.06155	9.63446
8	8.82640	9.15735	7.85515	9.02874	9.63487	38	8.82683	9.19167	7.88947	9.06264	9.63444
9	8.82642	9.15853	7.85633	9.02992	9.63485	39	8.82684	9.19277	7.89057	9.06372	9.63443
10	8.82643	9.15972	7.85752	9.03109	9.63484	40	8.82686	9.19386	7.89166	9.06481	9.63441
11	8.82644	9.16090	7.85870	9.03226	9.63483	41	8.82687	9.19496	7.89276	9.06589	9.63440
12	8.82646	9.16208	7.85988	9.03342	9.63481	42	8.82689	9.19605	7.89385	9.06696	9.63438
13	8.82647	9.16325	7.86105	9.03458	9.63480	43	8.82690	9.19714	7.89494	9.06804	9.63437
14	8.82649	9.16443	7.86223	9.03574	9.63478	44	8.82692	9.19822	7.89602	9.06911	9.63435
15	8.82650	9.16559	7.86339	9.03690	9.63477	45	8.82693	9.19931	7.89711	9.07018	9.63434
16	8.82651	9.16676	7.86456	9.03805	9.63476	46	8.82695	9.20039	7.89819	9.07124	9.63432
17	8.82653	9.16792	7.86572	9.03920	9.63474	47	8.82696	9.20147	7.89927	9.07231	9.63431
18	8.82654	9.16908	7.86688	9.04034	9.63473	48	8.82698	9.20254	7.90034	9.07337	9.63429
19	8.82655	9.17024	7.86804	9.04149	9.63472	49	8.82699	9.20362	7.90142	9.07442	9.63428
20	8.82657	9.17139	7.86919	9.04262	9.63470	50	8.82701	9.20469	7.90249	9.07548	9.63426
21	8.82658	9.17254	7.87034	9.04376	9.63469	51	8.82702	9.20575	7.90355	9.07653	9.63425
22	8.82660	9.17369	7.87149	9.04490	9.63467	52	8.82704	9.20682	7.90462	9.07758	9.63423
23	8.82661	9.17484	7.87264	9.04603	9.63466	53	8.82705	9.20788	7.90568	9.07863	9.63422
24	8.82663	9.17598	7.87378	9.04715	9.63464	54	8.82707	9.20894	7.90674	9.07968	9.63420
25	8.82664	9.17712	7.87492	9.04828	9.63463	55	8.82708	9.21000	7.90780	9.08072	9.63419
26	8.82665	9.17825	7.87605	9.04940	9.63462	56	8.82710	9.21106	7.90886	9.08176	9.63417
27	8.82667	9.17939	7.87719	9.05052	9.63460	57	8.82711	9.21211	7.90991	9.08280	9.63416
28	8.82668	9.18052	7.87832	9.05164	9.63459	58	8.82713	9.21316	7.91096	9.08383	9.63414
29	8.82670	9.18164	7.87944	9.05275	9.63457	59	8.82714	9.21421	7.91201	9.08486	9.63413
30	8.82671	9.18277	7.88057	9.05386	9.63456	60	8.82716	9.21525	7.91305	9.08589	9.63411
	a=b	c	d	a ¹ =b ¹	sa ¹		a=b	c	d	a ¹ =b ¹	sa ¹

Declination 6°.

Diff. 0.00121.

Diff. 0.00112.

1	2	11	22	21	42	1	2	11	21	21	39
2	4	12	24	22	44	2	4	12	22	22	41
3	6	13	26	23	46	3	6	13	24	23	43
4	8	14	28	24	48	4	7	14	26	24	45
5	10	15	30	25	50	5	9	15	28	25	47
6	12	16	32	26	52	6	11	16	30	26	49
7	14	17	34	27	54	7	13	17	32	27	50
8	16	18	36	28	56	8	15	18	34	28	52
9	18	19	38	29	58	9	17	19	35	29	54
10	20	20	40	30	61	10	19	20	37	30	56

N.P.D. Tables for Star Constants, 1880.

83° to 82°						87° to 96°					
sc=0.4875.						c1=1.30220.					
d1=0.00000.											
	a=b	c	d	a1=b1	sa1		a=b	c	d	a1=b1	sa1
0	8.82716	9.21525	7.91305	9.08589	9.63411	30	8.82764	9.24554	7.94334	9.11570	9.63363
1	8.82717	9.21630	7.91410	9.08692	9.63410	31	8.82766	9.24651	7.94431	9.11666	9.63361
2	8.82719	9.21734	7.91514	9.08795	9.63408	32	8.82767	9.24749	7.94529	9.11761	9.63360
3	8.82721	9.21838	7.91618	9.08897	9.63406	33	8.82769	9.24846	7.94626	9.11857	9.63358
4	8.82722	9.21941	7.91721	9.08999	9.63405	34	8.82771	9.24943	7.94723	9.11952	9.63356
5	8.82724	9.22045	7.91825	9.09101	9.63403	35	8.82773	9.25039	7.94819	9.12047	9.63354
6	8.82725	9.22148	7.91928	9.09202	9.63402	36	8.82774	9.25136	7.94916	9.12142	9.63353
7	8.82727	9.22251	7.92031	9.09304	9.63400	37	8.82776	9.25232	7.95012	9.12236	9.63351
8	8.82728	9.22353	7.92133	9.09405	9.63399	38	8.82778	9.25328	7.95108	9.12331	9.63349
9	8.82730	9.22456	7.92236	9.09506	9.63397	39	8.82779	9.25424	7.95204	9.12425	9.63348
10	8.82732	9.22558	7.92338	9.09606	9.63395	40	8.82781	9.25520	7.95300	9.12519	9.63346
11	8.82733	9.22660	7.92440	9.09707	9.63394	41	8.82783	9.25615	7.95395	9.12612	9.63344
12	8.82735	9.22761	7.92541	9.09807	9.63392	42	8.82784	9.25710	7.95490	9.12706	9.63343
13	8.82736	9.22863	7.92643	9.09907	9.63391	43	8.82786	9.25805	7.95585	9.12799	9.63341
14	8.82738	9.22964	7.92744	9.10006	9.63389	44	8.82788	9.25900	7.95680	9.12892	9.63339
15	8.82740	9.23065	7.92845	9.10106	9.63387	45	8.82790	9.25995	7.95775	9.12985	9.63337
16	8.82741	9.23166	7.92946	9.10205	9.63386	46	8.82791	9.26089	7.95869	9.13078	9.63336
17	8.82743	9.23267	7.93047	9.10304	9.63384	47	8.82793	9.26184	7.95964	9.13171	9.63334
18	8.82744	9.23367	7.93147	9.10402	9.63383	48	8.82795	9.26278	7.96058	9.13263	9.63332
19	8.82746	9.23467	7.93247	9.10501	9.63381	49	8.82796	9.26372	7.96152	9.13355	9.63331
20	8.82748	9.23567	7.93347	9.10599	9.63379	50	8.82798	9.26465	7.96245	9.13447	9.63329
21	8.82749	9.23667	7.93447	9.10697	9.63378	51	8.82800	9.26559	7.96339	9.13539	9.63327
22	8.82751	9.23766	7.93546	9.10795	9.63376	52	8.82802	9.26652	7.96432	9.13630	9.63325
23	8.82753	9.23865	7.93645	9.10893	9.63374	53	8.82803	9.26745	7.96525	9.13722	9.63324
24	8.82754	9.23964	7.93744	9.10990	9.63373	54	8.82805	9.26838	7.96618	9.13813	9.63322
25	8.82756	9.24063	7.93843	9.11087	9.63371	55	8.82807	9.26931	7.96711	9.13904	9.63320
26	8.82758	9.24162	7.93942	9.11184	9.63369	56	8.82809	9.27023	7.96803	9.13994	9.63318
27	8.82759	9.24260	7.94040	9.11281	9.63368	57	8.82810	9.27115	7.96895	9.14085	9.63317
28	8.82761	9.24358	7.94138	9.11377	9.63366	58	8.82812	9.27208	7.96988	9.14175	9.63315
29	8.82762	9.24456	7.94236	9.11474	9.63365	59	8.82814	9.27299	7.97079	9.14266	9.63313
30	8.82764	9.24554	7.94334	9.11570	9.63363	60	8.82816	9.27391	7.97171	9.14356	9.63311
	a=b	c	d	a1=b1	sa1		a=b	c	d	a1=b1	sa1

Declination 7°.

Diff. 0.00105.

Diff. 0.00097.

"	"	"	"	"	"	"	"	"	"
1	2	11	19	21	37	1	2	11	18
2	4	12	21	22	39	2	3	12	19
3	5	13	23	23	40	3	4	13	21
4	7	14	25	24	42	4	6	14	23
5	9	15	26	25	44	5	8	15	24
6	11	16	28	26	46	6	10	16	26
7	12	17	30	27	47	7	11	17	27
8	14	18	32	28	49	8	13	18	29
9	16	19	33	29	51	9	15	19	31
10	18	20	35	30	53	10	16	20	32

N.P.D. Tables for Star Constants, 1880.

82° to 81°						82° to 81°					
sc=0.4875.						c'=1.30220.					
d'=0.00000.						98° to 99°					
	a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'
0	8.82816	9.27391	7.97171	9.14356	9.63311	30	8.82871	9.30061	7.99841	9.16970	9.63256
1	8.82817	9.27483	7.97263	9.14445	9.63310	31	8.82873	9.30147	7.99927	9.17055	9.63254
2	8.82819	9.27574	7.97354	9.14535	9.63308	32	8.82874	9.30233	8.00013	9.17139	9.63253
3	8.82821	9.27665	7.97445	9.14624	9.63306	33	8.82876	9.30319	8.00099	9.17223	9.63251
4	8.82823	9.27756	7.97536	9.14714	9.63304	34	8.82878	9.30405	8.00185	9.17307	9.63249
5	8.82825	9.27847	7.97627	9.14803	9.63302	35	8.82880	9.30491	8.00271	9.17391	9.63247
6	8.82826	9.27938	7.97718	9.14891	9.63301	36	8.82882	9.30576	8.00356	9.17474	9.63245
7	8.82828	9.28028	7.97808	9.14980	9.63299	37	8.82884	9.30662	8.00442	9.17558	9.63243
8	8.82830	9.28119	7.97899	9.15069	9.63297	38	8.82886	9.30747	8.00527	9.17641	9.63241
9	8.82832	9.28209	7.97989	9.15157	9.63295	39	8.82888	9.30832	8.00612	9.17724	9.63239
10	8.82834	9.28299	7.98079	9.15245	9.63293	40	8.82890	9.30917	8.00697	9.17807	9.63237
11	8.82835	9.28388	7.98168	9.15333	9.63292	41	8.82892	9.31002	8.00782	9.17890	9.63235
12	8.82837	9.28478	7.98258	9.15421	9.63290	42	8.82894	9.31086	8.00866	9.17973	9.63233
13	8.82839	9.28567	7.98347	9.15508	9.63288	43	8.82896	9.31171	8.00951	9.18055	9.63231
14	8.82841	9.28657	7.98437	9.15596	9.63286	44	8.82897	9.31255	8.01035	9.18137	9.63230
15	8.82843	9.28746	7.98526	9.15683	9.63284	45	8.82899	9.31339	8.01119	9.18220	9.63228
16	8.82845	9.28835	7.98615	9.15770	9.63282	46	8.82901	9.31423	8.01203	9.18302	9.63226
17	8.82846	9.28923	7.98703	9.15857	9.63281	47	8.82903	9.31507	8.01287	9.18383	9.63224
18	8.82848	9.29012	7.98792	9.15944	9.63279	48	8.82905	9.31590	8.01370	9.18465	9.63222
19	8.82850	9.29100	7.98880	9.16030	9.63277	49	8.82907	9.31674	8.01454	9.18547	9.63220
20	8.82852	9.29188	7.98968	9.16116	9.63275	50	8.82909	9.31757	8.01537	9.18628	9.63218
21	8.82854	9.29276	7.99056	9.16203	9.63273	51	8.82911	9.31840	8.01620	9.18709	9.63216
22	8.82856	9.29364	7.99144	9.16289	9.63271	52	8.82913	9.31923	8.01703	9.18790	9.63214
23	8.82858	9.29452	7.99232	9.16374	9.63269	53	8.82915	9.32006	8.01786	9.18871	9.63212
24	8.82859	9.29539	7.99319	9.16460	9.63268	54	8.82917	9.32089	8.01869	9.18952	9.63210
25	8.82861	9.29627	7.99407	9.16545	9.63266	55	8.82919	9.32172	8.01952	9.19033	9.63208
26	8.82863	9.29714	7.99494	9.16631	9.63264	56	8.82921	9.32254	8.02034	9.19113	9.63206
27	8.82865	9.29801	7.99581	9.16716	9.63262	57	8.82923	9.32336	8.02116	9.19193	9.63204
28	8.82867	9.29888	7.99668	9.16801	9.63260	58	8.82925	9.32418	8.02198	9.19273	9.63202
29	8.82869	9.29974	7.99754	9.16886	9.63258	59	8.82927	9.32500	8.02280	9.19353	9.63200
30	8.82871	9.30061	7.99841	9.16970	9.63256	60	8.82929	9.32582	8.02362	9.19433	9.63198
	a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'

Declination 8°.

Diff. 0.00092.

Diff. 0.00086.

1	2	11	17	21	32	1	1	11	16	21	30
2	3	12	18	22	34	2	3	12	17	22	32
3	5	13	20	23	35	3	4	13	19	23	33
4	6	14	21	24	37	4	6	14	20	24	34
5	8	15	23	25	38	5	7	15	21	25	36
6	9	16	25	26	40	6	9	16	23	26	37
7	11	17	26	27	41	7	10	17	24	27	39
8	12	18	28	28	43	8	11	18	26	28	40
9	14	19	29	29	44	9	13	19	27	29	42
10	15	20	31	30	46	10	14	20	29	30	43

N.P.D. Tables for Star Constants, 1880.

81° to 80°						99° to 100°					
s=0.4875.						c'=1.30220.					
d'=0.00000.											
	a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'
0	8.82929	9.32582	8.02362	9.19433	9.63198	30	8.82991	9.34972	8.04752	9.21761	9.63136
1	8.82931	9.32664	8.02444	9.19513	9.63196	31	8.82993	9.35049	8.04829	9.21836	9.63134
2	8.82933	9.32745	8.02525	9.19592	9.63194	32	8.82995	9.35127	8.04907	9.21912	9.63132
3	8.82935	9.32827	8.02607	9.19672	9.63192	33	8.82997	9.35204	8.04984	9.21987	9.63130
4	8.82937	9.32908	8.02688	9.19751	9.63190	34	8.82999	9.35281	8.05061	9.22062	9.63128
5	8.82939	9.32989	8.02769	9.19830	9.63188	35	8.83001	9.35358	8.05138	9.22137	9.63126
6	8.82941	9.33070	8.02850	9.19909	9.63186	36	8.83003	9.35435	8.05215	9.22211	9.63124
7	8.82943	9.33151	8.02931	9.19988	9.63184	37	8.83006	9.35512	8.05292	9.22286	9.63121
8	8.82945	9.33232	8.03012	9.20067	9.63182	38	8.83008	9.35588	8.05368	9.22361	9.63119
9	8.82947	9.33312	8.03092	9.20145	9.63180	39	8.83010	9.35665	8.05445	9.22435	9.63117
10	8.82949	9.33393	8.03173	9.20223	9.63178	40	8.83012	9.35741	8.05521	9.22509	9.63115
11	8.82951	9.33473	8.03253	9.20302	9.63176	41	8.83014	9.35817	8.05597	9.22583	9.63113
12	8.82953	9.33553	8.03333	9.20380	9.63174	42	8.83016	9.35894	8.05674	9.22657	9.63111
13	8.82955	9.33633	8.03413	9.20458	9.63172	43	8.83019	9.35970	8.05750	9.22731	9.63108
14	8.82957	9.33713	8.03493	9.20535	9.63170	44	8.83021	9.36046	8.05826	9.22805	9.63106
15	8.82959	9.33793	8.03573	9.20613	9.63168	45	8.83023	9.36121	8.05901	9.22878	9.63104
16	8.82962	9.33872	8.03652	9.20691	9.63165	46	8.83025	9.36197	8.05977	9.22952	9.63102
17	8.82964	9.33952	8.03732	9.20768	9.63163	47	8.83027	9.36272	8.06052	9.23025	9.63100
18	8.82966	9.34031	8.03811	9.20845	9.63161	48	8.83029	9.36348	8.06128	9.23098	9.63098
19	8.82968	9.34110	8.03890	9.20922	9.63159	49	8.83032	9.36423	8.06203	9.23171	9.63095
20	8.82970	9.34189	8.03969	9.20999	9.63157	50	8.83034	9.36498	8.06278	9.23244	9.63093
21	8.82972	9.34268	8.04048	9.21076	9.63155	51	8.83036	9.36573	8.06353	9.23317	9.63091
22	8.82974	9.34347	8.04127	9.21153	9.63153	52	8.83038	9.36648	8.06428	9.23390	9.63089
23	8.82976	9.34425	8.04205	9.21229	9.63151	53	8.83040	9.36723	8.06503	9.23462	9.63087
24	8.82978	9.34504	8.04284	9.21306	9.63149	54	8.83043	9.36797	8.06577	9.23535	9.63084
25	8.82980	9.34582	8.04362	9.21382	9.63147	55	8.83045	9.36872	8.06652	9.23607	9.63082
26	8.82982	9.34660	8.04440	9.21458	9.63145	56	8.83047	9.36946	8.06726	9.23679	9.63080
27	8.82984	9.34738	8.04518	9.21534	9.63143	57	8.83049	9.37021	8.06801	9.23752	9.63078
28	8.82987	9.34816	8.04596	9.21610	9.63140	58	8.83051	9.37095	8.06875	9.23823	9.63076
29	8.82989	9.34894	8.04674	9.21685	9.63138	59	8.83054	9.37169	8.06949	9.23895	9.63073
30	8.82991	9.34972	8.04752	9.21761	9.63136	60	8.83056	9.37243	8.07023	9.23967	9.63071
	a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'

Declination 9°.

Diff. 0.00082.

Diff. 0.00078.

1		11		21		1		11		21	
1	1	11	16	21	29	2	1	11	14	21	27
2	3	12	16	22	30	3	3	12	16	22	29
3	4	13	18	23	31	4	4	13	17	23	30
4	5	14	19	24	33	5	5	14	18	24	31
5	7	15	21	25	34	6	7	15	20	25	33
6	8	16	22	26	36	7	8	16	21	26	34
7	10	17	23	27	37	8	9	17	22	27	35
8	11	18	25	28	38	9	10	18	23	28	36
9	12	19	26	29	40	10	12	19	25	29	38
10	14	20	27	30	41		13	20	26	30	39

N.P.D. Tables for Star Constants, 1880.

80° to 79°						100° to 101°					
ac=0'4875.						d'=0'00000.					
c'=1'30220.						a'=b'					
a=b						c					
d						a'=b'					
sa'						sa'					
0	8'83056	9'37243	8'07023	9'23967	9'63071	30	8'83124	9'39408	8'09188	9'26063	9'63003
1	8'83058	9'37317	8'07097	9'24039	9'63069	31	8'83127	9'39478	8'09258	9'26131	9'63000
2	8'83060	9'37390	8'07170	9'24110	9'63067	32	8'83129	9'39548	8'09328	9'26199	9'62998
3	8'83063	9'37464	8'07244	9'24181	9'63064	33	8'83131	9'39619	8'09399	9'26267	9'62996
4	8'83065	9'37537	8'07317	9'24253	9'63062	34	8'83134	9'39689	8'09469	9'26335	9'62993
5	8'83067	9'37611	8'07391	9'24324	9'63060	35	8'83136	9'39759	8'09539	9'26403	9'62991
6	8'83069	9'37684	8'07464	9'24395	9'63058	36	8'83139	9'39829	8'09609	9'26470	9'62988
7	8'83072	9'37757	8'07537	9'24466	9'63055	37	8'83141	9'39899	8'09679	9'26538	9'62986
8	8'83074	9'37830	8'07610	9'24536	9'63053	38	8'83143	9'39968	8'09748	9'26605	9'62984
9	8'83076	9'37903	8'07683	9'24607	9'63051	39	8'83146	9'40038	8'09818	9'26672	9'62981
10	8'83078	9'37976	8'07756	9'24677	9'63049	40	8'83148	9'40107	8'09887	9'26739	9'62979
11	8'83081	9'38048	8'07828	9'24748	9'63046	41	8'83150	9'40177	8'09957	9'26806	9'62977
12	8'83083	9'38121	8'07901	9'24818	9'63044	42	8'83153	9'40246	8'10026	9'26873	9'62974
13	8'83085	9'38193	8'07973	9'24888	9'63042	43	8'83155	9'40315	8'10095	9'26940	9'62972
14	8'83087	9'38266	8'08046	9'24958	9'63040	44	8'83158	9'40384	8'10164	9'27007	9'62969
15	8'83090	9'38338	8'08118	9'25028	9'63037	45	8'83160	9'40453	8'10233	9'27073	9'62967
16	8'83092	9'38410	8'08190	9'25098	9'63035	46	8'83162	9'40522	8'10302	9'27140	9'62965
17	8'83094	9'38482	8'08262	9'25168	9'63033	47	8'83165	9'40591	8'10371	9'27206	9'62962
18	8'83097	9'38554	8'08334	9'25237	9'63030	48	8'83167	9'40660	8'10440	9'27273	9'62960
19	8'83099	9'38626	8'08406	9'25307	9'63028	49	8'83170	9'40728	8'10508	9'27339	9'62957
20	8'83101	9'38697	8'08477	9'25376	9'63026	50	8'83172	9'40797	8'10577	9'27405	9'62955
21	8'83103	9'38769	8'08549	9'25445	9'63024	51	8'83174	9'40865	8'10645	9'27471	9'62953
22	8'83106	9'38840	8'08620	9'25514	9'63021	52	8'83177	9'40934	8'10714	9'27537	9'62950
23	8'83108	9'38912	8'08692	9'25583	9'63019	53	8'83179	9'41002	8'10782	9'27602	9'62948
24	8'83110	9'38983	8'08763	9'25652	9'63017	54	8'83182	9'41070	8'10850	9'27668	9'62945
25	8'83113	9'39054	8'08834	9'25721	9'63014	55	8'83184	9'41138	8'10918	9'27734	9'62943
26	8'83115	9'39125	8'08905	9'25790	9'63012	56	8'83187	9'41206	8'10986	9'27799	9'62940
27	8'83117	9'39196	8'08976	9'25858	9'63010	57	8'83189	9'41273	8'11053	9'27864	9'62938
28	8'83120	9'39266	8'09046	9'25927	9'63007	58	8'83191	9'41341	8'11121	9'27930	9'62936
29	8'83122	9'39337	8'09117	9'25995	9'63005	59	8'83194	9'41409	8'11189	9'27995	9'62933
30	8'83124	9'39408	8'09188	9'26063	9'63003	60	8'83196	9'41476	8'11256	9'28060	9'62931
a=b						c					
d						a'=b'					
sa'						sa'					

Declination 10°.

Diff. 0'00074.

Diff. 0'00071.

Diff. 0'00074.				Diff. 0'00071.			
1	2	3	4	1	2	3	4
1	1	11	14	21	26		
2	2	12	15	22	27		
3	4	13	16	23	28		
4	5	14	17	24	30		
5	6	15	19	25	31		
6	7	16	20	26	32		
7	9	17	21	27	33		
8	10	18	22	28	35		
9	11	19	23	29	36		
10	12	20	25	30	37		
1	2	11	13	21	25		
2	2	12	14	22	26		
3	4	13	15	23	27		
4	5	14	17	24	28		
5	6	15	18	25	30		
6	7	16	19	26	31		
7	8	17	20	27	32		
8	9	18	21	28	33		
9	11	19	22	29	34		
10	12	20	24	30	36		

N.P.D. Tables for Star Constants, 1880.

79° to 78°						101° to 102°					
sc=0.4875.						c'=1.30220.					
d'=0.00000.											
	a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'
0	8.83196	9.41476	8.11256	9.28060	9.62931	30	8.83272	9.43457	8.13237	9.29966	9.62855
1	8.83199	9.41544	8.11324	9.28125	9.62928	31	8.83274	9.43522	8.13302	9.30028	9.62853
2	8.83201	9.41611	8.11391	9.28190	9.62926	32	8.83277	9.43586	8.13366	9.30090	9.62850
3	8.83204	9.41678	8.11458	9.28254	9.62923	33	8.83279	9.43651	8.13431	9.30151	9.62848
4	8.83206	9.41745	8.11525	9.28319	9.62921	34	8.83282	9.43715	8.13495	9.30213	9.62845
5	8.83209	9.41812	8.11592	9.28384	9.62918	35	8.83285	9.43779	8.13559	9.30275	9.62842
6	8.83211	9.41879	8.11659	9.28448	9.62916	36	8.83287	9.43844	8.13624	9.30336	9.62840
7	8.83214	9.41946	8.11726	9.28512	9.62913	37	8.83290	9.43908	8.13688	9.30398	9.62837
8	8.83216	9.42013	8.11793	9.28577	9.62911	38	8.83292	9.43972	8.13752	9.30459	9.62835
9	8.83219	9.42079	8.11859	9.28641	9.62908	39	8.83295	9.44036	8.13816	9.30521	9.62832
10	8.83221	9.42146	8.11926	9.28705	9.62906	40	8.83298	9.44100	8.13880	9.30582	9.62829
11	8.83224	9.42212	8.11992	9.28769	9.62903	41	8.83300	9.44163	8.13943	9.30643	9.62827
12	8.83226	9.42279	8.12059	9.28833	9.62901	42	8.83303	9.44227	8.14007	9.30704	9.62824
13	8.83229	9.42345	8.12125	9.28896	9.62898	43	8.83305	9.44290	8.14070	9.30765	9.62822
14	8.83231	9.42411	8.12191	9.28960	9.62896	44	8.83308	9.44354	8.14134	9.30826	9.62819
15	8.83234	9.42477	8.12257	9.29024	9.62893	45	8.83311	9.44417	8.14197	9.30887	9.62816
16	8.83236	9.42543	8.12323	9.29087	9.62891	46	8.83313	9.44481	8.14261	9.30947	9.62814
17	8.83239	9.42609	8.12389	9.29150	9.62888	47	8.83316	9.44544	8.14324	9.31008	9.62811
18	8.83241	9.42675	8.12455	9.29214	9.62886	48	8.83319	9.44607	8.14387	9.31068	9.62808
19	8.83244	9.42741	8.12521	9.29277	9.62883	49	8.83321	9.44670	8.14450	9.31129	9.62806
20	8.83246	9.42806	8.12586	9.29340	9.62881	50	8.83324	9.44733	8.14513	9.31189	9.62803
21	8.83249	9.42872	8.12652	9.29403	9.62878	51	8.83327	9.44796	8.14576	9.31250	9.62800
22	8.83251	9.42937	8.12717	9.29466	9.62876	52	8.83329	9.44859	8.14639	9.31310	9.62798
23	8.83254	9.43002	8.12782	9.29529	9.62873	53	8.83332	9.44922	8.14702	9.31370	9.62795
24	8.83256	9.43068	8.12848	9.29591	9.62871	54	8.83335	9.44984	8.14764	9.31430	9.62792
25	8.83259	9.43133	8.12913	9.29654	9.62868	55	8.83337	9.45047	8.14827	9.31490	9.62790
26	8.83261	9.43198	8.12978	9.29716	9.62866	56	8.83340	9.45109	8.14889	9.31549	9.62787
27	8.83264	9.43263	8.13043	9.29779	9.62863	57	8.83343	9.45172	8.14952	9.31609	9.62784
28	8.83267	9.43328	8.13108	9.29841	9.62860	58	8.83345	9.45234	8.15014	9.31669	9.62782
29	8.83269	9.43393	8.13173	9.29903	9.62858	59	8.83348	9.45296	8.15076	9.31728	9.62779
30	8.83272	9.43457	8.13237	9.29966	9.62855	60	8.83351	9.45358	8.15138	9.31788	9.62776
	a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'

Declination 11°.

Diff. 0.00065.

1	1	11	12	21	23
2	2	12	13	22	24
3	3	13	14	23	25
4	4	14	15	24	26
5	5	15	16	25	27
6	6	16	17	26	28
7	7	17	18	27	29
8	8	18	19	28	30
9	9	19	20	29	31
10	10	20	21	30	32

N.P.D. Tables for Star Constants, 1880.

78° to 77°						sc=0.4875.						c'=1.30220.						d'=0.00000.						102° to 103°					
	a=b	c	d	a'=b'	sa'																								
0	8.83351	9.45358	8.15138	9.31788	9.62776	30	8.83433	9.47187	8.16967	9.33534	9.62694																		
1	8.83353	9.45421	8.15201	9.31847	9.62774	31	8.83436	9.47246	8.17026	9.33591	9.62691																		
2	8.83356	9.45483	8.15263	9.31907	9.62771	32	8.83438	9.47306	8.17086	9.33647	9.62689																		
3	8.83359	9.45544	8.15324	9.31966	9.62768	33	8.83441	9.47366	8.17146	9.33704	9.62686																		
4	8.83361	9.45606	8.15386	9.32025	9.62766	34	8.83444	9.47425	8.17205	9.33761	9.62683																		
5	8.83364	9.45668	8.15448	9.32084	9.62763	35	8.83447	9.47485	8.17265	9.33818	9.62680																		
6	8.83367	9.45730	8.15510	9.32143	9.62760	36	8.83450	9.47544	8.17324	9.33874	9.62677																		
7	8.83369	9.45791	8.15571	9.32202	9.62758	37	8.83453	9.47603	8.17383	9.33931	9.62674																		
8	8.83372	9.45853	8.15633	9.32261	9.62755	38	8.83455	9.47662	8.17442	9.33987	9.62672																		
9	8.83375	9.45914	8.15694	9.32319	9.62752	39	8.83458	9.47722	8.17502	9.34043	9.62669																		
10	8.83378	9.45976	8.15756	9.32378	9.62749	40	8.83461	9.47781	8.17561	9.34100	9.62666																		
11	8.83380	9.46037	8.15817	9.32437	9.62747	41	8.83464	9.47840	8.17620	9.34156	9.62663																		
12	8.83383	9.46098	8.15878	9.32495	9.62744	42	8.83467	9.47899	8.17679	9.34212	9.62660																		
13	8.83386	9.46159	8.15939	9.32553	9.62741	43	8.83470	9.47958	8.17738	9.34268	9.62657																		
14	8.83389	9.46220	8.16000	9.32612	9.62738	44	8.83472	9.48016	8.17796	9.34324	9.62655																		
15	8.83391	9.46281	8.16061	9.32670	9.62736	45	8.83475	9.48075	8.17855	9.34380	9.62652																		
16	8.83394	9.46342	8.16122	9.32728	9.62733	46	8.83478	9.48134	8.17914	9.34436	9.62649																		
17	8.83397	9.46403	8.16183	9.32786	9.62730	47	8.83481	9.48192	8.17972	9.34491	9.62646																		
18	8.83400	9.46464	8.16244	9.32844	9.62727	48	8.83484	9.48251	8.18031	9.34547	9.62643																		
19	8.83402	9.46524	8.16304	9.32902	9.62725	49	8.83487	9.48309	8.18089	9.34602	9.62640																		
20	8.83405	9.46585	8.16365	9.32960	9.62722	50	8.83490	9.48368	8.18148	9.34658	9.62637																		
21	8.83408	9.46645	8.16425	9.33018	9.62719	51	8.83493	9.48426	8.18206	9.34713	9.62634																		
22	8.83411	9.46706	8.16486	9.33075	9.62716	52	8.83495	9.48484	8.18264	9.34769	9.62632																		
23	8.83413	9.46766	8.16546	9.33133	9.62714	53	8.83498	9.48542	8.18322	9.34824	9.62629																		
24	8.83416	9.46826	8.16606	9.33190	9.62711	54	8.83501	9.48600	8.18380	9.34879	9.62626																		
25	8.83419	9.46887	8.16667	9.33248	9.62708	55	8.83504	9.48658	8.18438	9.34934	9.62623																		
26	8.83422	9.46947	8.16727	9.33305	9.62705	56	8.83507	9.48716	8.18496	9.34989	9.62620																		
27	8.83424	9.47007	8.16787	9.33362	9.62703	57	8.83510	9.48774	8.18554	9.35044	9.62617																		
28	8.83427	9.47067	8.16847	9.33420	9.62700	58	8.83513	9.48832	8.18612	9.35099	9.62614																		
29	8.83430	9.47127	8.16907	9.33477	9.62697	59	8.83516	9.48890	8.18670	9.35154	9.62611																		
30	8.83433	9.47187	8.16967	9.33534	9.62694	60	8.83519	9.48947	8.18727	9.35209	9.62608																		
	a=b	c	d	a'=b'	sa'																								

Declination 12°.

Diff. 0.00060.

1	1	11	11	21	21
2	2	12	12	22	22
3	3	13	13	23	23
4	4	14	14	24	24
5	5	15	15	25	25
6	6	16	16	26	26
7	7	17	17	27	27
8	8	18	18	28	28
9	9	19	19	29	29
10	10	20	20	30	30

N.P.D. Tables for Star Constants, 1880.

77° to 76°						103° to 104°					
sc=0°4875.						c'=1°30220.					
d'=0°00000.											
	a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'
0	8°83519	9°48947	8°18727	9°35209	9°62608	30	8°83608	9°50646	8°20426	9°36819	9°62519
1	8°83522	9°49005	8°18785	9°35263	9°62605	31	8°83611	9°50702	8°20482	9°36871	9°62516
2	8°83524	9°49063	8°18843	9°35318	9°62603	32	8°83614	9°50758	8°20538	9°36924	9°62513
3	8°83527	9°49120	8°18900	9°35373	9°62600	33	8°83617	9°50813	8°20593	9°36976	9°62510
4	8°83530	9°49177	8°18957	9°35427	9°62597	34	8°83620	9°50868	8°20648	9°37028	9°62507
5	8°83533	9°49235	8°19015	9°35481	9°62594	35	8°83623	9°50924	8°20704	9°37081	9°62504
6	8°83536	9°49292	8°19072	9°35536	9°62591	36	8°83626	9°50979	8°20759	9°37133	9°62501
7	8°83539	9°49349	8°19129	9°35590	9°62588	37	8°83629	9°51034	8°20814	9°37185	9°62498
8	8°83542	9°49406	8°19186	9°35644	9°62585	38	8°83632	9°51090	8°20870	9°37237	9°62495
9	8°83545	9°49463	8°19243	9°35698	9°62582	39	8°83635	9°51145	8°20925	9°37289	9°62492
10	8°83548	9°49520	8°19300	9°35752	9°62579	40	8°83638	9°51200	8°20980	9°37341	9°62489
11	8°83551	9°49577	8°19357	9°35806	9°62576	41	8°83641	9°51255	8°21035	9°37393	9°62486
12	8°83554	9°49634	8°19414	9°35860	9°62573	42	8°83645	9°51310	8°21090	9°37445	9°62483
13	8°83557	9°49691	8°19471	9°35914	9°62570	43	8°83648	9°51365	8°21145	9°37497	9°62479
14	8°83560	9°49748	8°19528	9°35968	9°62567	44	8°83651	9°51419	8°21199	9°37549	9°62476
15	8°83563	9°49804	8°19584	9°36022	9°62564	45	8°83654	9°51474	8°21254	9°37600	9°62473
16	8°83566	9°49861	8°19641	9°36075	9°62561	46	8°83657	9°51529	8°21309	9°37652	9°62470
17	8°83569	9°49917	8°19697	9°36129	9°62558	47	8°83660	9°51583	8°21363	9°37703	9°62467
18	8°83572	9°49974	8°19754	9°36182	9°62555	48	8°83663	9°51638	8°21418	9°37755	9°62464
19	8°83575	9°50030	8°19810	9°36236	9°62552	49	8°83666	9°51693	8°21473	9°37806	9°62461
20	8°83578	9°50087	8°19867	9°36289	9°62549	50	8°83669	9°51747	8°21527	9°37858	9°62458
21	8°83581	9°50143	8°19923	9°36342	9°62546	51	8°83672	9°51801	8°21581	9°37909	9°62455
22	8°83584	9°50199	8°19979	9°36395	9°62543	52	8°83676	9°51856	8°21636	9°37960	9°62451
23	8°83587	9°50255	8°20035	9°36449	9°62540	53	8°83679	9°51910	8°21690	9°38011	9°62448
24	8°83590	9°50311	8°20091	9°36502	9°62537	54	8°83682	9°51964	8°21744	9°38062	9°62445
25	8°83593	9°50367	8°20147	9°36555	9°62534	55	8°83685	9°52018	8°21798	9°38113	9°62442
26	8°83596	9°50423	8°20203	9°36608	9°62531	56	8°83688	9°52072	8°21852	9°38164	9°62439
27	8°83599	9°50479	8°20259	9°36660	9°62528	57	8°83691	9°52126	8°21906	9°38215	9°62436
28	8°83602	9°50535	8°20315	9°36713	9°62525	58	8°83694	9°52180	8°21960	9°38266	9°62433
29	8°83605	9°50591	8°20371	9°36766	9°62522	59	8°83697	9°52234	8°22014	9°38317	9°62430
30	8°83608	9°50646	8°20426	9°36819	9°62519	60	8°83701	9°52288	8°22068	9°38368	9°62426
	a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'

Declination 13°.

D_H. 0°00056. -

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30

N.P.D. Tables for Star Constants, 1880.

76° to 75°						104° to 105°					
sc=0.4875.						c'=1.30220.					
d'=0.00000.											
	a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'
0	8.83701	9.52288	8.22068	9.38368	9.62426	30	8.83797	9.53877	8.23657	9.39860	9.62330
1	8.83704	9.52342	8.22122	9.38418	9.62423	31	8.83800	9.53929	8.23709	9.39909	9.62327
2	8.83707	9.52396	8.22176	9.38469	9.62420	32	8.83803	9.53981	8.23761	9.39958	9.62324
3	8.83710	9.52449	8.22229	9.38519	9.62417	33	8.83807	9.54033	8.23813	9.40006	9.62320
4	8.83713	9.52503	8.22283	9.38570	9.62414	34	8.83810	9.54085	8.23865	9.40055	9.62317
5	8.83716	9.52556	8.22336	9.38620	9.62411	35	8.83813	9.54137	8.23917	9.40103	9.62314
6	8.83720	9.52610	8.22390	9.38670	9.62407	36	8.83817	9.54189	8.23969	9.40152	9.62310
7	8.83723	9.52663	8.22443	9.38721	9.62404	37	8.83820	9.54240	8.24020	9.40200	9.62307
8	8.83726	9.52717	8.22497	9.38771	9.62401	38	8.83823	9.54292	8.24072	9.40249	9.62304
9	8.83729	9.52770	8.22550	9.38821	9.62398	39	8.83826	9.54344	8.24124	9.40297	9.62301
10	8.83732	9.52823	8.22603	9.38871	9.62395	40	8.83830	9.54395	8.24175	9.40346	9.62297
11	8.83735	9.52877	8.22657	9.38921	9.62392	41	8.83833	9.54447	8.24227	9.40394	9.62294
12	8.83739	9.52930	8.22710	9.38971	9.62388	42	8.83836	9.54498	8.24278	9.40442	9.62291
13	8.83742	9.52983	8.22763	9.39021	9.62385	43	8.83840	9.54550	8.24330	9.40490	9.62287
14	8.83745	9.53036	8.22816	9.39071	9.62382	44	8.83843	9.54601	8.24381	9.40538	9.62284
15	8.83748	9.53089	8.22869	9.39121	9.62379	45	8.83846	9.54652	8.24432	9.40586	9.62281
16	8.83751	9.53142	8.22922	9.39170	9.62376	46	8.83850	9.54704	8.24484	9.40634	9.62277
17	8.83755	9.53195	8.22975	9.39220	9.62372	47	8.83853	9.54755	8.24535	9.40682	9.62274
18	8.83758	9.53247	8.23027	9.39270	9.62369	48	8.83856	9.54806	8.24586	9.40730	9.62271
19	8.83761	9.53300	8.23080	9.39319	9.62366	49	8.83860	9.54857	8.24637	9.40778	9.62267
20	8.83764	9.53353	8.23133	9.39369	9.62363	50	8.83863	9.54908	8.24688	9.40825	9.62264
21	8.83768	9.53406	8.23186	9.39418	9.62359	51	8.83866	9.54959	8.24739	9.40873	9.62261
22	8.83771	9.53458	8.23238	9.39467	9.62356	52	8.83870	9.55010	8.24790	9.40921	9.62257
23	8.83774	9.53511	8.23291	9.39517	9.62353	53	8.83873	9.55061	8.24841	9.40968	9.62254
24	8.83777	9.53563	8.23343	9.39566	9.62350	54	8.83876	9.55112	8.24892	9.41016	9.62251
25	8.83781	9.53616	8.23396	9.39615	9.62346	55	8.83880	9.55163	8.24943	9.41063	9.62247
26	8.83784	9.53668	8.23448	9.39664	9.62343	56	8.83883	9.55214	8.24994	9.41111	9.62244
27	8.83787	9.53720	8.23500	9.39713	9.62340	57	8.83886	9.55264	8.25044	9.41158	9.62241
28	8.83790	9.53772	8.23552	9.39762	9.62337	58	8.83890	9.55315	8.25095	9.41205	9.62237
29	8.83794	9.53825	8.23605	9.39811	9.62333	59	8.83893	9.55366	8.25146	9.41252	9.62234
30	8.83797	9.53877	8.23657	9.39860	9.62330	60	8.83897	9.55416	8.25196	9.41300	9.62230
	a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'

Declination 14°.

Diff. 0.00052.

1		11		21	
1	1	11	10	21	18
2	2	12	10	22	19
3	3	13	11	23	20
4	3	14	12	24	21
5	4	15	13	25	22
6	5	16	14	26	23
7	6	17	15	27	23
8	7	18	16	28	24
9	8	19	16	29	25
10	9	20	17	30	26

N.P.D. Tables for Star Constants, 1880.

75° to 74°						sc=0'4875.						c'=1'30220.						d'=0'00000.						105° to 106°					
a=b						c						d						a'=b'						sa'					
0	8'83897	9'55416	8'25196	9'41300	9'62230	30	8'84000	9'56910	8'26690	9'42690	9'62127																		
1	8'83900	9'55467	8'25247	9'41347	9'62227	31	8'84003	9'56959	8'26739	9'42735	9'62124																		
2	8'83903	9'55517	8'25297	9'41394	9'62224	32	8'84007	9'57008	8'26788	9'42781	9'62120																		
3	8'83907	9'55568	8'25348	9'41441	9'62220	33	8'84010	9'57057	8'26837	9'42826	9'62117																		
4	8'83910	9'55618	8'25398	9'41488	9'62217	34	8'84014	9'57106	8'26886	9'42872	9'62113																		
5	8'83914	9'55668	8'25448	9'41535	9'62213	35	8'84018	9'57155	8'26935	9'42917	9'62109																		
6	8'83917	9'55719	8'25499	9'41584	9'62210	36	8'84021	9'57203	8'26983	9'42962	9'62106																		
7	8'83920	9'55769	8'25549	9'41628	9'62207	37	8'84025	9'57252	8'27032	9'43008	9'62102																		
8	8'83924	9'55819	8'25599	9'41675	9'62203	38	8'84028	9'57301	8'27081	9'43053	9'62099																		
9	8'83927	9'55869	8'25649	9'41722	9'62200	39	8'84032	9'57349	8'27129	9'43098	9'62095																		
10	8'83931	9'55919	8'25699	9'41768	9'62196	40	8'84035	9'57398	8'27178	9'43143	9'62092																		
11	8'83934	9'55969	8'25749	9'41815	9'62193	41	8'84039	9'57447	8'27227	9'43188	9'62088																		
12	8'83938	9'56019	8'25799	9'41861	9'62189	42	8'84042	9'57495	8'27275	9'43233	9'62085																		
13	8'83941	9'56069	8'25849	9'41908	9'62186	43	8'84046	9'57544	8'27324	9'43278	9'62081																		
14	8'83944	9'56119	8'25899	9'41954	9'62183	44	8'84049	9'57592	8'27372	9'43323	9'62078																		
15	8'83948	9'56169	8'25949	9'42001	9'62179	45	8'84053	9'57640	8'27420	9'43367	9'62074																		
16	8'83951	9'56218	8'25998	9'42047	9'62176	46	8'84057	9'57689	8'27469	9'43412	9'62070																		
17	8'83955	9'56268	8'26048	9'42093	9'62172	47	8'84060	9'57737	8'27517	9'43457	9'62067																		
18	8'83958	9'56318	8'26098	9'42140	9'62169	48	8'84064	9'57785	8'27565	9'43502	9'62063																		
19	8'83962	9'56367	8'26147	9'42186	9'62165	49	8'84067	9'57833	8'27613	9'43546	9'62060																		
20	8'83965	9'56417	8'26197	9'42232	9'62162	50	8'84071	9'57882	8'27662	9'43591	9'62056																		
21	8'83969	9'56466	8'26246	9'42278	9'62158	51	8'84074	9'57930	8'27710	9'43635	9'62053																		
22	8'83972	9'56516	8'26296	9'42324	9'62155	52	8'84078	9'57978	8'27758	9'43680	9'62049																		
23	8'83976	9'56565	8'26345	9'42370	9'62151	53	8'84082	9'58026	8'27806	9'43724	9'62045																		
24	8'83979	9'56615	8'26395	9'42416	9'62148	54	8'84085	9'58074	8'27854	9'43769	9'62042																		
25	8'83982	9'56664	8'26444	9'42461	9'62145	55	8'84089	9'58122	8'27902	9'43813	9'62038																		
26	8'83986	9'56713	8'26493	9'42507	9'62141	56	8'84092	9'58170	8'27950	9'43857	9'62035																		
27	8'83989	9'56762	8'26542	9'42553	9'62138	57	8'84096	9'58217	8'27997	9'43901	9'62031																		
28	8'83993	9'56812	8'26592	9'42599	9'62134	58	8'84100	9'58265	8'28045	9'43946	9'62027																		
29	8'83996	9'56861	8'26641	9'42644	9'62131	59	8'84103	9'58313	8'28093	9'43990	9'62024																		
30	8'84000	9'56910	8'26690	9'42690	9'62127	60	8'84107	9'58361	8'28141	9'44034	9'62020																		
a=b						c						d						a'=b'						sa'					

Declination 15°.

Diff. 0'00049.

1		11		21	
1	1	11	9	21	17
2	2	12	10	22	18
3	3	13	11	23	19
4	4	14	12	24	20
5	5	15	13	25	21
6	6	16	14	26	22
7	7	17	15	27	23
8	8	18	16	28	24
9	9	19	17	29	25
10	10	20	18	30	26

N.P.D. Tables for Star Constants, 1880.

74° to 73°						sc=0.4875.						c'=1.30220.						d'=0.00000.						106° to 107°					
	a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'
0	8.84107	9.58361	8.28141	9.44034	9.62020	30	8.84217	9.59771	8.29551	9.45334	9.61910																		
1	8.84110	9.58408	8.28188	9.44078	9.62017	31	8.84221	9.59818	8.29598	9.45377	9.61906																		
2	8.84114	9.58456	8.28236	9.44122	9.62013	32	8.84225	9.59864	8.29644	9.45419	9.61902																		
3	8.84118	9.58503	8.28283	9.44166	9.62009	33	8.84229	9.59910	8.29690	9.45462	9.61898																		
4	8.84121	9.58551	8.28331	9.44210	9.62006	34	8.84232	9.59957	8.29737	9.45504	9.61895																		
5	8.84125	9.58598	8.28378	9.44253	9.62002	35	8.84236	9.60003	8.29783	9.45547	9.61891																		
6	8.84129	9.58646	8.28426	9.44297	9.61998	36	8.84240	9.60049	8.29829	9.45589	9.61887																		
7	8.84132	9.58693	8.28473	9.44341	9.61995	37	8.84244	9.60095	8.29875	9.45632	9.61883																		
8	8.84136	9.58741	8.28521	9.44385	9.61991	38	8.84247	9.60141	8.29921	9.45674	9.61880																		
9	8.84140	9.58788	8.28568	9.44428	9.61987	39	8.84251	9.60187	8.29967	9.45716	9.61876																		
10	8.84143	9.58835	8.28615	9.44472	9.61984	40	8.84255	9.60233	8.30013	9.45758	9.61872																		
11	8.84147	9.58882	8.28662	9.44516	9.61980	41	8.84259	9.60279	8.30059	9.45801	9.61868																		
12	8.84151	9.58930	8.28710	9.44559	9.61976	42	8.84262	9.60325	8.30105	9.45843	9.61865																		
13	8.84154	9.58977	8.28757	9.44602	9.61972	43	8.84266	9.60371	8.30151	9.45885	9.61861																		
14	8.84158	9.59024	8.28804	9.44646	9.61969	44	8.84270	9.60417	8.30197	9.45927	9.61857																		
15	8.84162	9.59071	8.28851	9.44689	9.61965	45	8.84274	9.60463	8.30243	9.45969	9.61853																		
16	8.84165	9.59118	8.28898	9.44733	9.61962	46	8.84278	9.60508	8.30288	9.46011	9.61849																		
17	8.84169	9.59165	8.28945	9.44776	9.61958	47	8.84281	9.60554	8.30334	9.46053	9.61846																		
18	8.84173	9.59212	8.28992	9.44819	9.61954	48	8.84285	9.60600	8.30380	9.46095	9.61842																		
19	8.84176	9.59259	8.29039	9.44862	9.61951	49	8.84289	9.60646	8.30426	9.46136	9.61838																		
20	8.84180	9.59305	8.29085	9.44905	9.61947	50	8.84293	9.60691	8.30471	9.46178	9.61834																		
21	8.84184	9.59352	8.29132	9.44948	9.61943	51	8.84297	9.60737	8.30517	9.46220	9.61830																		
22	8.84187	9.59399	8.29179	9.44992	9.61940	52	8.84301	9.60782	8.30562	9.46262	9.61826																		
23	8.84191	9.59446	8.29226	9.45035	9.61936	53	8.84304	9.60828	8.30608	9.46303	9.61823																		
24	8.84195	9.59492	8.29272	9.45077	9.61932	54	8.84308	9.60873	8.30653	9.46345	9.61819																		
25	8.84199	9.59539	8.29319	9.45120	9.61928	55	8.84312	9.60918	8.30698	9.46386	9.61815																		
26	8.84202	9.59586	8.29366	9.45163	9.61925	56	8.84316	9.60964	8.30744	9.46428	9.61811																		
27	8.84206	9.59632	8.29412	9.45206	9.61921	57	8.84320	9.61009	8.30789	9.46469	9.61807																		
28	8.84210	9.59679	8.29459	9.45249	9.61917	58	8.84324	9.61054	8.30834	9.46511	9.61803																		
29	8.84214	9.59725	8.29505	9.45292	9.61913	59	8.84328	9.61100	8.30880	9.46552	9.61799																		
30	8.84217	9.59771	8.29551	9.45334	9.61910	60	8.84331	9.61145	8.30925	9.46594	9.61796																		
	a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'

Declination 16°.

Diff. 0.00046.

1		11		21	
1	1	11	9	21	16
2	2	12	9	22	17
3	2	13	10	23	18
4	3	14	11	24	19
5	4	15	12	25	19
6	5	16	12	26	20
7	5	17	13	27	21
8	6	18	14	28	22
9	7	19	15	29	22
10	8	20	15	30	23

N.P.D. Tables for Star Constants, 1880.

73° to 72°						107° to 106°					
sc=0.4875.						c'=1.30220.					
d'=0.00000.											
	a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'
1	8.84331	9.61145	8.30925	9.46594	9.61796	30	8.84449	9.62483	8.32263	9.47814	9.61678
2	8.84335	9.61190	8.30970	9.46635	9.61792	31	8.84453	9.62527	8.32307	9.47854	9.61674
3	8.84339	9.61235	8.31015	9.46676	9.61788	32	8.84457	9.62571	8.32351	9.47894	9.61670
4	8.84343	9.61280	8.31060	9.46717	9.61784	33	8.84461	9.62615	8.32395	9.47934	9.61666
5	8.84347	9.61325	8.31105	9.46758	9.61780	34	8.84465	9.62659	8.32439	9.47974	9.61662
6	8.84351	9.61370	8.31150	9.46800	9.61776	35	8.84469	9.62703	8.32483	9.48014	9.61658
7	8.84355	9.61415	8.31195	9.46841	9.61772	36	8.84473	9.62747	8.32527	9.48054	9.61654
8	8.84359	9.61460	8.31240	9.46882	9.61768	37	8.84477	9.62791	8.32571	9.48094	9.61650
9	8.84362	9.61505	8.31285	9.46923	9.61765	38	8.84481	9.62834	8.32614	9.48133	9.61646
10	8.84366	9.61550	8.31330	9.46964	9.61761	39	8.84485	9.62878	8.32658	9.48173	9.61642
11	8.84370	9.61595	8.31375	9.47005	9.61757	40	8.84489	9.62922	8.32702	9.48213	9.61638
12	8.84374	9.61640	8.31420	9.47045	9.61753	41	8.84493	9.62966	8.32746	9.48252	9.61634
13	8.84378	9.61684	8.31464	9.47086	9.61749	42	8.84497	9.63009	8.32789	9.48292	9.61630
14	8.84382	9.61729	8.31509	9.47127	9.61745	43	8.84501	9.63053	8.32833	9.48332	9.61626
15	8.84386	9.61774	8.31554	9.47168	9.61741	44	8.84505	9.63096	8.32876	9.48371	9.61622
16	8.84390	9.61818	8.31598	9.47209	9.61737	45	8.84509	9.63140	8.32920	9.48411	9.61618
17	8.84394	9.61863	8.31643	9.47249	9.61733	46	8.84513	9.63183	8.32963	9.48450	9.61614
18	8.84398	9.61907	8.31687	9.47290	9.61729	47	8.84517	9.63227	8.33007	9.48490	9.61610
19	8.84402	9.61952	8.31732	9.47330	9.61725	48	8.84521	9.63270	8.33050	9.48529	9.61606
20	8.84405	9.61996	8.31776	9.47371	9.61722	49	8.84525	9.63314	8.33094	9.48568	9.61602
21	8.84409	9.62041	8.31821	9.47411	9.61718	50	8.84530	9.63357	8.33137	9.48607	9.61597
22	8.84413	9.62085	8.31865	9.47452	9.61714	51	8.84534	9.63400	8.33180	9.48647	9.61593
23	8.84417	9.62130	8.31910	9.47492	9.61710	52	8.84538	9.63444	8.33224	9.48686	9.61589
24	8.84421	9.62174	8.31954	9.47533	9.61706	53	8.84542	9.63487	8.33267	9.48725	9.61585
25	8.84425	9.62218	8.31998	9.47573	9.61702	54	8.84546	9.63530	8.33310	9.48764	9.61581
26	8.84429	9.62263	8.32043	9.47613	9.61698	55	8.84550	9.63573	8.33353	9.48803	9.61577
27	8.84433	9.62307	8.32087	9.47654	9.61694	56	8.84554	9.63616	8.33396	9.48842	9.61573
28	8.84437	9.62351	8.32131	9.47694	9.61690	57	8.84558	9.63659	8.33439	9.48881	9.61569
29	8.84441	9.62395	8.32175	9.47734	9.61686	58	8.84562	9.63703	8.33483	9.48920	9.61565
30	8.84445	9.62439	8.32219	9.47774	9.61682	59	8.84566	9.63746	8.33526	9.48959	9.61561
	8.84449	9.62483	8.32263	9.47814	9.61678	60	8.84570	9.63789	8.33569	9.48998	9.61557
	a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'

Declination 17°.

Diff. 0.00044.

1	1	11	8	21	15
2	2	12	9	22	16
3	3	13	10	23	17
4	4	14	11	24	18
5	5	15	12	25	19
6	6	16	13	26	20
7	7	17	14	27	21
8	8	18	15	28	22
9	9	19	16	29	23
10	10	20	17	30	24

N.P.D. Tables for Star Constants, 1880.

72° to 71°					c1=1°30220.					d1=0°00000. 108° to 109°				
	a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'			
0	8.84570	9.63789	8.33569	9.48998	9.61557	30	8.84695	9.65063	8.34843	9.50148	9.61432			
1	8.84574	9.63832	8.33612	9.49037	9.61553	31	8.84700	9.65105	8.34885	9.50185	9.61427			
2	8.84579	9.63875	8.33655	9.49076	9.61548	32	8.84704	9.65147	8.34927	9.50223	9.61423			
3	8.84583	9.63917	8.33697	9.49115	9.61544	33	8.84708	9.65189	8.34969	9.50261	9.61419			
4	8.84587	9.63960	8.33740	9.49153	9.61540	34	8.84712	9.65231	8.35011	9.50298	9.61415			
5	8.84591	9.64003	8.33783	9.49192	9.61536	35	8.84717	9.65272	8.35052	9.50336	9.61410			
6	8.84595	9.64046	8.33826	9.49231	9.61532	36	8.84721	9.65314	8.35094	9.50374	9.61406			
7	8.84599	9.64089	8.33869	9.49269	9.61528	37	8.84725	9.65356	8.35136	9.50411	9.61402			
8	8.84603	9.64131	8.33911	9.49308	9.61524	38	8.84729	9.65398	8.35178	9.50449	9.61398			
9	8.84607	9.64174	8.33954	9.49347	9.61520	39	8.84734	9.65440	8.35220	9.50486	9.61393			
10	8.84612	9.64217	8.33997	9.49385	9.61515	40	8.84738	9.65481	8.35261	9.50523	9.61389			
11	8.84616	9.64259	8.34039	9.49424	9.61511	41	8.84742	9.65523	8.35303	9.50561	9.61385			
12	8.84620	9.64302	8.34082	9.49462	9.61507	42	8.84746	9.65564	8.35344	9.50598	9.61381			
13	8.84624	9.64345	8.34125	9.49500	9.61503	43	8.84751	9.65606	8.35386	9.50635	9.61376			
14	8.84628	9.64387	8.34167	9.49539	9.61499	44	8.84755	9.65648	8.35428	9.50673	9.61372			
15	8.84632	9.64430	8.34210	9.49577	9.61495	45	8.84759	9.65689	8.35469	9.50710	9.61368			
16	8.84637	9.64472	8.34252	9.49615	9.61490	46	8.84763	9.65731	8.35511	9.50747	9.61364			
17	8.84641	9.64514	8.34294	9.49654	9.61486	47	8.84768	9.65772	8.35552	9.50784	9.61359			
18	8.84645	9.64557	8.34337	9.49692	9.61482	48	8.84772	9.65813	8.35593	9.50821	9.61355			
19	8.84649	9.64599	8.34379	9.49730	9.61478	49	8.84776	9.65855	8.35635	9.50858	9.61351			
20	8.84653	9.64642	8.34422	9.49768	9.61474	50	8.84781	9.65896	8.35676	9.50896	9.61346			
21	8.84657	9.64684	8.34464	9.49806	9.61470	51	8.84785	9.65938	8.35718	9.50933	9.61342			
22	8.84662	9.64726	8.34506	9.49844	9.61465	52	8.84789	9.65979	8.35759	9.50970	9.61338			
23	8.84666	9.64768	8.34548	9.49882	9.61461	53	8.84794	9.66020	8.35800	9.51007	9.61333			
24	8.84670	9.64811	8.34591	9.49920	9.61457	54	8.84798	9.66061	8.35841	9.51043	9.61329			
25	8.84674	9.64853	8.34633	9.49958	9.61453	55	8.84802	9.66103	8.35883	9.51080	9.61325			
26	8.84678	9.64895	8.34675	9.49996	9.61449	56	8.84807	9.66144	8.35924	9.51117	9.61320			
27	8.84683	9.64937	8.34717	9.50034	9.61444	57	8.84811	9.66185	8.35965	9.51154	9.61316			
28	8.84687	9.64979	8.34759	9.50072	9.61440	58	8.84815	9.66226	8.36006	9.51191	9.61312			
29	8.84691	9.65021	8.34801	9.50110	9.61436	59	8.84820	9.66267	8.36047	9.51227	9.61307			
30	8.84695	9.65063	8.34843	9.50148	9.61432	60	8.84824	9.66308	8.36088	9.51264	9.61303			
	a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'			

Declination 18°.

Diff. 0.00042.

1	1	11	8	21	15
2	1	12	8	22	15
3	2	13	9	23	16
4	3	14	10	24	17
5	4	15	11	25	18
6	4	16	11	26	18
7	5	17	12	27	19
8	6	18	13	28	20
9	6	19	13	29	20
10	7	20	14	30	21

N.P.D. Tables for Star Constants, 1880.

71° to 70°					sc=0.4875.					c¹=1.30220.					d¹=0.00000.					109° to 110°				
	a=b	c	d	a¹=b¹	sa¹																			
0	8.84824	9.66308	8.36088	9.51264	9.61303	30	8.84956	9.67526	8.37306	9.52350	9.61171													
1	8.84828	9.66349	8.36129	9.51301	9.61299	31	8.84961	9.67566	8.37346	9.52385	9.61166													
2	8.84833	9.66390	8.36170	9.51338	9.61294	32	8.84965	9.67606	8.37386	9.52421	9.61162													
3	8.84837	9.66431	8.36211	9.51374	9.61290	33	8.84970	9.67646	8.37426	9.52456	9.61157													
4	8.84841	9.66472	8.36252	9.51411	9.61286	34	8.84974	9.67686	8.37466	9.52492	9.61153													
5	8.84846	9.66513	8.36293	9.51447	9.61281	35	8.84979	9.67726	8.37506	9.52527	9.61148													
6	8.84850	9.66554	8.36334	9.51484	9.61277	36	8.84983	9.67766	8.37546	9.52563	9.61144													
7	8.84855	9.66595	8.36375	9.51520	9.61272	37	8.84988	9.67806	8.37586	9.52598	9.61139													
8	8.84859	9.66636	8.36416	9.51557	9.61268	38	8.84992	9.67846	8.37626	9.52634	9.61135													
9	8.84863	9.66676	8.36456	9.51593	9.61264	39	8.84997	9.67886	8.37666	9.52669	9.61130													
10	8.84868	9.66717	8.36497	9.51629	9.61259	40	8.85001	9.67926	8.37706	9.52705	9.61126													
11	8.84872	9.66758	8.36538	9.51666	9.61255	41	8.85006	9.67966	8.37746	9.52740	9.61121													
12	8.84876	9.66798	8.36578	9.51702	9.61251	42	8.85010	9.68006	8.37786	9.52775	9.61117													
13	8.84881	9.66839	8.36619	9.51738	9.61246	43	8.85015	9.68045	8.37825	9.52811	9.61112													
14	8.84885	9.66880	8.36660	9.51774	9.61242	44	8.85019	9.68085	8.37865	9.52846	9.61108													
15	8.84890	9.66920	8.36700	9.51811	9.61237	45	8.85024	9.68125	8.37905	9.52881	9.61103													
16	8.84894	9.66961	8.36741	9.51847	9.61233	46	8.85028	9.68165	8.37945	9.52916	9.61099													
17	8.84899	9.67001	8.36781	9.51883	9.61228	47	8.85033	9.68204	8.37984	9.52951	9.61094													
18	8.84903	9.67042	8.36822	9.51919	9.61224	48	8.85038	9.68244	8.38024	9.52986	9.61089													
19	8.84907	9.67082	8.36862	9.51955	9.61220	49	8.85042	9.68284	8.38064	9.53021	9.61085													
20	8.84912	9.67123	8.36903	9.51991	9.61215	50	8.85047	9.68323	8.38103	9.53056	9.61080													
21	8.84916	9.67163	8.36943	9.52027	9.61211	51	8.85051	9.68363	8.38143	9.53092	9.61076													
22	8.84921	9.67204	8.36984	9.52063	9.61206	52	8.85056	9.68402	8.38182	9.53126	9.61071													
23	8.84925	9.67244	8.37024	9.52099	9.61202	53	8.85060	9.68442	8.38222	9.53161	9.61067													
24	8.84930	9.67284	8.37064	9.52135	9.61197	54	8.85065	9.68481	8.38261	9.53196	9.61062													
25	8.84934	9.67325	8.37105	9.52171	9.61193	55	8.85069	9.68521	8.38301	9.53231	9.61058													
26	8.84938	9.67365	8.37145	9.52207	9.61189	56	8.85074	9.68560	8.38340	9.53266	9.61053													
27	8.84943	9.67405	8.37185	9.52242	9.61184	57	8.85079	9.68600	8.38380	9.53301	9.61048													
28	8.84947	9.67446	8.37226	9.52278	9.61180	58	8.85083	9.68639	8.38419	9.53336	9.61044													
29	8.84952	9.67486	8.37266	9.52314	9.61175	59	8.85088	9.68678	8.38458	9.53370	9.61039													
30	8.84956	9.67526	8.37306	9.52350	9.61171	60	8.85092	9.68718	8.38498	9.53405	9.61035													
	a=b	c	d	a¹=b¹	sa¹																			

Declination 19°.

Diff. 0.00040.

1	1	11	7	21	14
2	1	12	8	22	15
3	2	13	9	23	15
4	3	14	9	24	16
5	3	15	10	25	17
6	4	16	11	26	17
7	5	17	11	27	18
8	5	18	12	28	19
9	6	19	13	29	19
10	7	20	13	30	20

N.P.D. Tables for Star Constants, 1880.

70° to 69°					110° to 111°						
sc=0.4875.					c1=1.30220.						
d1=0.00000											
	a=b	c	d	a1=b1	sa1		a=b	c	d	a1=b1	sa1
0	8.85092	9.68718	8.38498	9.53405	9.61035	30	8.85232	9.69885	8.39665	9.54433	9.60895
1	8.85097	9.68757	8.38537	9.53440	9.61050	31	8.85237	9.69923	8.39703	9.54466	9.60890
2	8.85102	9.68796	8.38576	9.53475	9.61025	32	8.85242	9.69962	8.39742	9.54500	9.60885
3	8.85106	9.68835	8.38615	9.53509	9.61021	33	8.85246	9.70000	8.39780	9.54534	9.60881
4	8.85111	9.68875	8.38655	9.53544	9.61016	34	8.85251	9.70039	8.39819	9.54567	9.60876
5	8.85115	9.68914	8.38694	9.53578	9.61012	35	8.85256	9.70077	8.39857	9.54601	9.60871
6	8.85120	9.68953	8.38733	9.53613	9.61007	36	8.85261	9.70115	8.39895	9.54635	9.60866
7	8.85125	9.68992	8.38772	9.53647	9.61002	37	8.85265	9.70154	8.39934	9.54668	9.60862
8	8.85129	9.69031	8.38811	9.53682	9.60998	38	8.85270	9.70192	8.39972	9.54702	9.60857
9	8.85134	9.69070	8.38850	9.53716	9.60993	39	8.85275	9.70230	8.40010	9.54735	9.60852
10	8.85139	9.69109	8.38889	9.53751	9.60988	40	8.85280	9.70269	8.40049	9.54769	9.60847
11	8.85143	9.69148	8.38928	9.53785	9.60984	41	8.85284	9.70307	8.40087	9.54802	9.60843
12	8.85148	9.69187	8.38967	9.53819	9.60979	42	8.85289	9.70345	8.40125	9.54836	9.60838
13	8.85153	9.69226	8.39006	9.53854	9.60974	43	8.85294	9.70383	8.40163	9.54869	9.60833
14	8.85157	9.69265	8.39045	9.53888	9.60970	44	8.85299	9.70421	8.40201	9.54903	9.60828
15	8.85162	9.69304	8.39084	9.53922	9.60965	45	8.85304	9.70460	8.40240	9.54936	9.60823
16	8.85167	9.69343	8.39123	9.53957	9.60960	46	8.85308	9.70498	8.40278	9.54969	9.60819
17	8.85171	9.69382	8.39162	9.53991	9.60956	47	8.85313	9.70536	8.40316	9.55003	9.60814
18	8.85176	9.69421	8.39201	9.54025	9.60951	48	8.85318	9.70574	8.40354	9.55036	9.60809
19	8.85181	9.69460	8.39240	9.54059	9.60946	49	8.85323	9.70612	8.40392	9.55069	9.60804
20	8.85185	9.69498	8.39278	9.54093	9.60942	50	8.85328	9.70650	8.40430	9.55102	9.60799
21	8.85190	9.69537	8.39317	9.54127	9.60937	51	8.85332	9.70688	8.40468	9.55136	9.60795
22	8.85195	9.69576	8.39356	9.54161	9.60932	52	8.85337	9.70726	8.40506	9.55169	9.60790
23	8.85199	9.69615	8.39395	9.54195	9.60928	53	8.85342	9.70764	8.40544	9.55202	9.60785
24	8.85204	9.69653	8.39433	9.54229	9.60923	54	8.85347	9.70802	8.40582	9.55235	9.60780
25	8.85209	9.69692	8.39472	9.54263	9.60918	55	8.85352	9.70840	8.40620	9.55268	9.60775
26	8.85213	9.69731	8.39511	9.54297	9.60914	56	8.85356	9.70878	8.40658	9.55301	9.60771
27	8.85218	9.69769	8.39549	9.54331	9.60909	57	8.85361	9.70915	8.40695	9.55334	9.60766
28	8.85223	9.69808	8.39588	9.54365	9.60904	58	8.85366	9.70953	8.40733	9.55367	9.60761
29	8.85228	9.69846	8.39626	9.54399	9.60899	59	8.85371	9.70991	8.40771	9.55400	9.60756
30	8.85232	9.69885	8.39665	9.54433	9.60895	60	8.85376	9.71029	8.40809	9.55433	9.60751
	a=b	c	d	a1=b1	sa1		a=b	c	d	a1=b1	sa1

Declination 20°.

Diff. 0.00038.

1		11		21	
1	1	11	7	21	13
2	1	12	8	22	14
3	2	13	8	23	15
4	3	14	9	24	15
5	3	15	10	25	16
6	4	16	10	26	16
7	4	17	11	27	17
8	5	18	11	28	18
9	6	19	12	29	18
10	6	20	13	30	19

N.P.D. Tables for Star Constants, 1880.

69° to 68°						c=0.4875.						c'=1.30220.						d'=0.00000. 111° to 112°					
	a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'
0	8.85376	9.71029	8.40809	9.55433	9.60751	30	8.85523	9.72151	8.41931	9.56408	9.60604												
1	8.85381	9.71066	8.40846	9.55466	9.60746	31	8.85528	9.72188	8.41968	9.56440	9.60599												
2	8.85386	9.71104	8.40884	9.55499	9.60741	32	8.85533	9.72225	8.42005	9.56472	9.60594												
3	8.85390	9.71142	8.40922	9.55532	9.60737	33	8.85538	9.72262	8.42042	9.56504	9.60589												
4	8.85395	9.71180	8.40960	9.55564	9.60732	34	8.85543	9.72299	8.42079	9.56536	9.60584												
5	8.85400	9.71217	8.40997	9.55597	9.60727	35	8.85548	9.72336	8.42116	9.56568	9.60579												
6	8.85405	9.71255	8.41035	9.55630	9.60722	36	8.85553	9.72373	8.42153	9.56599	9.60574												
7	8.85410	9.71292	8.41072	9.55663	9.60717	37	8.85558	9.72410	8.42190	9.56631	9.60569												
8	8.85415	9.71330	8.41110	9.55695	9.60712	38	8.85563	9.72446	8.42226	9.56663	9.60564												
9	8.85420	9.71368	8.41148	9.55728	9.60707	39	8.85568	9.72483	8.42263	9.56695	9.60559												
10	8.85425	9.71405	8.41185	9.55761	9.60702	40	8.85573	9.72520	8.42300	9.56727	9.60554												
11	8.85429	9.71443	8.41223	9.55793	9.60698	41	8.85578	9.72557	8.42337	9.56759	9.60549												
12	8.85434	9.71480	8.41260	9.55826	9.60693	42	8.85583	9.72594	8.42374	9.56790	9.60544												
13	8.85439	9.71518	8.41298	9.55858	9.60688	43	8.85588	9.72630	8.42410	9.56822	9.60539												
14	8.85444	9.71555	8.41335	9.55891	9.60683	44	8.85593	9.72667	8.42447	9.56854	9.60534												
15	8.85449	9.71592	8.41372	9.55923	9.60678	45	8.85598	9.72704	8.42484	9.56886	9.60529												
16	8.85454	9.71630	8.41410	9.55956	9.60673	46	8.85603	9.72741	8.42521	9.56917	9.60524												
17	8.85459	9.71667	8.41447	9.55988	9.60668	47	8.85608	9.72777	8.42557	9.56949	9.60519												
18	8.85464	9.71705	8.41485	9.56021	9.60663	48	8.85613	9.72814	8.42594	9.56980	9.60514												
19	8.85469	9.71742	8.41522	9.56053	9.60658	49	8.85619	9.72851	8.42631	9.57012	9.60508												
20	8.85474	9.71779	8.41559	9.56085	9.60653	50	8.85624	9.72887	8.42667	9.57044	9.60503												
21	8.85479	9.71816	8.41596	9.56118	9.60648	51	8.85629	9.72924	8.42704	9.57075	9.60498												
22	8.85484	9.71854	8.41634	9.56150	9.60643	52	8.85634	9.72960	8.42740	9.57107	9.60493												
23	8.85488	9.71891	8.41671	9.56182	9.60639	53	8.85639	9.72997	8.42777	9.57138	9.60488												
24	8.85493	9.71928	8.41708	9.56215	9.60634	54	8.85644	9.73033	8.42813	9.57169	9.60483												
25	8.85498	9.71965	8.41745	9.56247	9.60629	55	8.85649	9.73070	8.42850	9.57201	9.60478												
26	8.85503	9.72002	8.41782	9.56279	9.60624	56	8.85654	9.73106	8.42886	9.57232	9.60473												
27	8.85508	9.72040	8.41820	9.56311	9.60619	57	8.85659	9.73143	8.42923	9.57264	9.60468												
28	8.85513	9.72077	8.41857	9.56343	9.60614	58	8.85664	9.73179	8.42959	9.57295	9.60463												
29	8.85518	9.72114	8.41894	9.56375	9.60609	59	8.85669	9.73216	8.42996	9.57326	9.60458												
30	8.85523	9.72151	8.41931	9.56408	9.60604	60	8.85674	9.73252	8.43032	9.57358	9.60453												
	a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'

Declination 21°.

Diff. 0.00037.

1	1	11	7	21	13
2	1	12	7	22	14
3	2	13	8	23	14
4	2	14	9	24	15
5	3	15	9	25	15
6	4	16	10	26	16
7	4	17	10	27	17
8	5	18	11	28	17
9	6	19	12	29	18
10	6	20	12	30	19

N.P.D. Tables for Star Constants, 1880.

68° to 67°						112° to 113°					
sc=0'4875.						c'=1'30220.					
d'=0'00000.											
	a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'
0	8'85674	9'73252	8'43032	9'57358	9'60453	30	8'85829	9'74333	8'44113	9'58284	9'60298
1	8'85680	9'73288	8'43068	9'57389	9'60447	31	8'85835	9'74369	8'44149	9'58314	9'60292
2	8'85685	9'73325	8'43105	9'57420	9'60442	32	8'85840	9'74405	8'44185	9'58345	9'60287
3	8'85690	9'73361	8'43141	9'57451	9'60437	33	8'85845	9'74441	8'44221	9'58375	9'60282
4	8'85695	9'73397	8'43177	9'57482	9'60432	34	8'85850	9'74476	8'44256	9'58406	9'60277
5	8'85700	9'73434	8'43214	9'57514	9'60427	35	8'85856	9'74512	8'44292	9'58436	9'60271
6	8'85705	9'73470	8'43250	9'57545	9'60422	36	8'85861	9'74547	8'44327	9'58467	9'60266
7	8'85710	9'73506	8'43286	9'57576	9'60417	37	8'85866	9'74583	8'44363	9'58497	9'60261
8	8'85715	9'73542	8'43322	9'57607	9'60412	38	8'85871	9'74619	8'44399	9'58527	9'60256
9	8'85721	9'73578	8'43358	9'57638	9'60406	39	8'85877	9'74654	8'44434	9'58557	9'60250
10	8'85726	9'73615	8'43395	9'57669	9'60401	40	8'85882	9'74690	8'44470	9'58588	9'60245
11	8'85731	9'73651	8'43431	9'57700	9'60396	41	8'85887	9'74725	8'44505	9'58618	9'60240
12	8'85736	9'73687	8'43467	9'57731	9'60391	42	8'85893	9'74761	8'44541	9'58648	9'60234
13	8'85741	9'73723	8'43503	9'57762	9'60386	43	8'85898	9'74796	8'44576	9'58678	9'60229
14	8'85746	9'73759	8'43539	9'57793	9'60381	44	8'85903	9'74832	8'44612	9'58709	9'60224
15	8'85751	9'73795	8'43575	9'57824	9'60376	45	8'85908	9'74867	8'44647	9'58739	9'60219
16	8'85757	9'73831	8'43611	9'57855	9'60370	46	8'85914	9'74903	8'44683	9'58769	9'60213
17	8'85762	9'73867	8'43647	9'57885	9'60365	47	8'85919	9'74938	8'44718	9'58799	9'60208
18	8'85767	9'73903	8'43683	9'57916	9'60360	48	8'85924	9'74973	8'44753	9'58829	9'60203
19	8'85772	9'73939	8'43719	9'57947	9'60355	49	8'85930	9'75009	8'44789	9'58859	9'60197
20	8'85777	9'73975	8'43755	9'57978	9'60350	50	8'85935	9'75044	8'44824	9'58889	9'60192
21	8'85783	9'74011	8'43791	9'58008	9'60344	51	8'85941	9'75079	8'44859	9'58919	9'60187
22	8'85788	9'74047	8'43827	9'58039	9'60339	52	8'85946	9'75115	8'44895	9'58949	9'60181
23	8'85793	9'74083	8'43863	9'58070	9'60334	53	8'85951	9'75150	8'44930	9'58979	9'60176
24	8'85798	9'74119	8'43899	9'58101	9'60329	54	8'85956	9'75185	8'44965	9'59009	9'60171
25	8'85803	9'74155	8'43935	9'58131	9'60324	55	8'85962	9'75220	8'45000	9'59039	9'60165
26	8'85809	9'74190	8'43970	9'58162	9'60318	56	8'85967	9'75256	8'45036	9'59069	9'60160
27	8'85814	9'74226	8'44006	9'58192	9'60313	57	8'85972	9'75291	8'45071	9'59098	9'60155
28	8'85819	9'74262	8'44042	9'58223	9'60308	58	8'85978	9'75326	8'45106	9'59128	9'60149
29	8'85824	9'74298	8'44078	9'58253	9'60303	59	8'85983	9'75361	8'45141	9'59158	9'60144
30	8'85829	9'74333	8'44113	9'58284	9'60298	60	8'85988	9'75396	8'45176	9'59188	9'60139
	a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'

Declination 22°.

Diff. 0'00036.

<i>s</i>	<i>s</i>	<i>s</i>	<i>s</i>	<i>s</i>	<i>s</i>
1	1	11	7	21	13
2	1	12	7	22	13
3	2	13	8	23	14
4	2	14	8	24	14
5	3	15	9	25	15
6	4	16	10	26	16
7	4	17	10	27	16
8	5	18	11	28	17
9	5	19	11	29	17
10	6	20	12	30	18

N.P.D. Tables for Star Constants, 1880.

67° to 66°					c=0.4875.					c'=1.30220.					d'=0.00000.					113° to 114°				
	a=b	c	d	a'=b'	sa'						a=b	c	d	a'=b'	sa'									
0	8.85988	9.75396	8.45176	9.59188	9.60139	30	8.86151	9.76441	8.46221	9.60070	9.59976													
1	8.85994	9.75431	8.45211	9.59218	9.60133	31	8.86157	9.76476	8.46256	9.60099	9.59970													
2	8.85999	9.75466	8.45246	9.59247	9.60128	32	8.86162	9.76510	8.46290	9.60128	9.59965													
3	8.86004	9.75501	8.45281	9.59277	9.60123	33	8.86168	9.76545	8.46325	9.60157	9.59959													
4	8.86010	9.75537	8.45317	9.59307	9.60117	34	8.86173	9.76579	8.46359	9.60186	9.59954													
5	8.86015	9.75572	8.45352	9.59336	9.60112	35	8.86179	9.76614	8.46394	9.60215	9.59948													
6	8.86021	9.75607	8.45387	9.59366	9.60106	36	8.86184	9.76648	8.46428	9.60244	9.59943													
7	8.86026	9.75642	8.45422	9.59396	9.60101	37	8.86190	9.76683	8.46463	9.60273	9.59937													
8	8.86031	9.75677	8.45457	9.59425	9.60096	38	8.86195	9.76717	8.46497	9.60302	9.59932													
9	8.86037	9.75712	8.45492	9.59455	9.60090	39	8.86201	9.76751	8.46531	9.60331	9.59926													
10	8.86042	9.75746	8.45526	9.59484	9.60085	40	8.86206	9.76786	8.46566	9.60359	9.59921													
11	8.86048	9.75781	8.45561	9.59514	9.60079	41	8.86212	9.76820	8.46600	9.60388	9.59915													
12	8.86053	9.75816	8.45596	9.59543	9.60074	42	8.86217	9.76854	8.46634	9.60417	9.59910													
13	8.86058	9.75851	8.45631	9.59573	9.60069	43	8.86223	9.76889	8.46669	9.60446	9.59904													
14	8.86064	9.75886	8.45666	9.59602	9.60063	44	8.86229	9.76923	8.46703	9.60474	9.59898													
15	8.86069	9.75921	8.45701	9.59632	9.60058	45	8.86234	9.76957	8.46737	9.60503	9.59893													
16	8.86075	9.75956	8.45736	9.59661	9.60052	46	8.86240	9.76992	8.46772	9.60532	9.59887													
17	8.86080	9.75990	8.45770	9.59690	9.60047	47	8.86245	9.77026	8.46806	9.60561	9.59882													
18	8.86086	9.76025	8.45805	9.59720	9.60041	48	8.86251	9.77060	8.46840	9.60589	9.59876													
19	8.86091	9.76060	8.45840	9.59749	9.60036	49	8.86256	9.77094	8.46874	9.60618	9.59871													
20	8.86097	9.76095	8.45875	9.59778	9.60030	50	8.86262	9.77128	8.46908	9.60646	9.59865													
21	8.86102	9.76130	8.45910	9.59808	9.60025	51	8.86268	9.77163	8.46943	9.60675	9.59859													
22	8.86107	9.76164	8.45944	9.59837	9.60020	52	8.86273	9.77197	8.46977	9.60704	9.59854													
23	8.86113	9.76199	8.45979	9.59866	9.60014	53	8.86279	9.77231	8.47011	9.60732	9.59848													
24	8.86118	9.76234	8.46014	9.59895	9.60009	54	8.86284	9.77265	8.47045	9.60761	9.59843													
25	8.86124	9.76268	8.46048	9.59924	9.60003	55	8.86290	9.77299	8.47079	9.60789	9.59837													
26	8.86129	9.76303	8.46083	9.59954	9.59998	56	8.86296	9.77333	8.47113	9.60818	9.59831													
27	8.86135	9.76337	8.46117	9.59983	9.59992	57	8.86301	9.77367	8.47147	9.60846	9.59826													
28	8.86140	9.76372	8.46152	9.60012	9.59987	58	8.86307	9.77401	8.47181	9.60875	9.59820													
29	8.86146	9.76407	8.46187	9.60041	9.59981	59	8.86312	9.77435	8.47215	9.60903	9.59815													
30	8.86151	9.76441	8.46221	9.60070	9.59976	60	8.86318	9.77469	8.47249	9.60931	9.59809													
	a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'													

Declination 23°.

Diff. 0.00035.

a	a	a	a	a	a
1	1	11	6	21	12
2	1	12	7	22	13
3	2	13	8	23	13
4	2	14	8	24	14
5	3	15	9	25	15
6	3	16	9	26	15
7	4	17	10	27	16
8	5	18	10	28	16
9	5	19	11	29	17
10	6	20	12	30	18

N.P.D. Tables for Star Constants, 1880.

66° to 65°						sc=0.4875.						c'=1.30220.						d'=0.00000.						114° to 115°					
	a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'						
0	8.86318	9.77469	8.47249	9.60931	9.59809	30	8.86489	9.78481	8.48261	9.61773	9.59638																		
1	8.86324	9.77503	8.47283	9.60960	9.59803	31	8.86494	9.78515	8.48295	9.61800	9.59633																		
2	8.86329	9.77537	8.47317	9.60988	9.59798	32	8.86500	9.78548	8.48328	9.61828	9.59627																		
3	8.86335	9.77571	8.47351	9.61016	9.59792	33	8.86506	9.78582	8.48362	9.61856	9.59621																		
4	8.86341	9.77605	8.47385	9.61045	9.59786	34	8.86512	9.78615	8.48395	9.61883	9.59615																		
5	8.86346	9.77639	8.47419	9.61073	9.59781	35	8.86518	9.78649	8.48429	9.61911	9.59609																		
6	8.86352	9.77673	8.47453	9.61101	9.59775	36	8.86523	9.78682	8.48462	9.61939	9.59604																		
7	8.86357	9.77707	8.47487	9.61129	9.59770	37	8.86529	9.78715	8.48495	9.61966	9.59598																		
8	8.86363	9.77741	8.47521	9.61158	9.59764	38	8.86535	9.78749	8.48529	9.61994	9.59592																		
9	8.86369	9.77775	8.47555	9.61186	9.59758	39	8.86541	9.78782	8.48562	9.62021	9.59586																		
10	8.86374	9.77808	8.47588	9.61214	9.59753	40	8.86547	9.78815	8.48595	9.62049	9.59580																		
11	8.86380	9.77842	8.47622	9.61242	9.59747	41	8.86552	9.78849	8.48629	9.62076	9.59575																		
12	8.86386	9.77876	8.47656	9.61270	9.59741	42	8.86558	9.78882	8.48662	9.62104	9.59569																		
13	8.86391	9.77910	8.47690	9.61298	9.59736	43	8.86564	9.78915	8.48695	9.62131	9.59563																		
14	8.86397	9.77944	8.47724	9.61326	9.59730	44	8.86570	9.78948	8.48728	9.62159	9.59557																		
15	8.86403	9.77977	8.47757	9.61354	9.59724	45	8.86576	9.78982	8.48762	9.62186	9.59551																		
16	8.86409	9.78011	8.47791	9.61382	9.59718	46	8.86581	9.79015	8.48795	9.62214	9.59546																		
17	8.86414	9.78045	8.47825	9.61411	9.59713	47	8.86587	9.79048	8.48828	9.62241	9.59540																		
18	8.86420	9.78078	8.47858	9.61438	9.59707	48	8.86593	9.79081	8.48861	9.62268	9.59534																		
19	8.86426	9.78112	8.47892	9.61466	9.59701	49	8.86599	9.79114	8.48894	9.62296	9.59528																		
20	8.86431	9.78146	8.47926	9.61494	9.59696	50	8.86605	9.79148	8.48928	9.62323	9.59522																		
21	8.86437	9.78179	8.47959	9.61522	9.59690	51	8.86611	9.79181	8.48961	9.62350	9.59516																		
22	8.86443	9.78213	8.47993	9.61550	9.59684	52	8.86616	9.79214	8.48994	9.62377	9.59511																		
23	8.86449	9.78247	8.48027	9.61578	9.59678	53	8.86622	9.79247	8.49027	9.62405	9.59505																		
24	8.86454	9.78280	8.48060	9.61606	9.59673	54	8.86628	9.79280	8.49060	9.62432	9.59499																		
25	8.86460	9.78314	8.48094	9.61634	9.59667	55	8.86634	9.79313	8.49093	9.62459	9.59493																		
26	8.86466	9.78347	8.48127	9.61662	9.59661	56	8.86640	9.79346	8.49126	9.62486	9.59487																		
27	8.86471	9.78381	8.48161	9.61689	9.59656	57	8.86646	9.79379	8.49159	9.62513	9.59481																		
28	8.86477	9.78414	8.48194	9.61717	9.59650	58	8.86652	9.79412	8.49192	9.62541	9.59475																		
29	8.86483	9.78448	8.48228	9.61745	9.59644	59	8.86658	9.79445	8.49225	9.62568	9.59469																		
30	8.86489	9.78481	8.48261	9.61773	9.59638	60	8.86663	9.79478	8.49258	9.62595	9.59464																		
	a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'						

Declination 24°.

Diff. 0.00034.

1	1	11	6	21	12
2	1	12	7	22	12
3	2	13	7	23	13
4	2	14	8	24	14
5	3	15	9	25	14
6	3	16	9	26	15
7	4	17	10	27	15
8	5	18	10	28	16
9	5	19	11	29	16
10	6	20	11	30	17

N.P.D. Tables for Star Constants, 1880.

65° to 64°						c'=1'30220.						d'=0'00000. 115° to 116°					
	a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'
0	8.86663	9.79478	8.49258	9.62595	9.59464	30	8.86842	9.80461	8.50241	9.63398	9.59285						
1	8.86669	9.79511	8.49291	9.62622	9.59458	31	8.86848	9.80493	8.50273	9.63425	9.59279						
2	8.86675	9.79544	8.49324	9.62649	9.59452	32	8.86854	9.80526	8.50306	9.63451	9.59273						
3	8.86681	9.79577	8.49357	9.62676	9.59446	33	8.86860	9.80558	8.50338	9.63478	9.59267						
4	8.86687	9.79610	8.49390	9.62703	9.59440	34	8.86866	9.80591	8.50371	9.63504	9.59261						
5	8.86693	9.79643	8.49423	9.62730	9.59434	35	8.86872	9.80623	8.50403	9.63531	9.59255						
6	8.86699	9.79676	8.49456	9.62757	9.59428	36	8.86878	9.80655	8.50435	9.63557	9.59249						
7	8.86705	9.79709	8.49489	9.62784	9.59422	37	8.86884	9.80688	8.50468	9.63583	9.59243						
8	8.86711	9.79742	8.49522	9.62811	9.59416	38	8.86891	9.80720	8.50500	9.63610	9.59236						
9	8.86717	9.79774	8.49554	9.62838	9.59410	39	8.86897	9.80753	8.50533	9.63636	9.59230						
10	8.86723	9.79807	8.49587	9.62865	9.59404	40	8.86903	9.80785	8.50565	9.63662	9.59224						
11	8.86728	9.79840	8.49620	9.62892	9.59399	41	8.86909	9.80817	8.50597	9.63689	9.59218						
12	8.86734	9.79873	8.49653	9.62918	9.59393	42	8.86915	9.80850	8.50630	9.63715	9.59212						
13	8.86740	9.79906	8.49686	9.62945	9.59387	43	8.86921	9.80882	8.50662	9.63741	9.59206						
14	8.86746	9.79938	8.49718	9.62972	9.59381	44	8.86927	9.80914	8.50694	9.63767	9.59200						
15	8.86752	9.79971	8.49751	9.62999	9.59375	45	8.86933	9.80947	8.50727	9.63794	9.59194						
16	8.86758	9.80004	8.49784	9.63026	9.59369	46	8.86939	9.80979	8.50759	9.63820	9.59188						
17	8.86764	9.80037	8.49817	9.63052	9.59363	47	8.86945	9.81011	8.50791	9.63846	9.59182						
18	8.86770	9.80069	8.49849	9.63079	9.59357	48	8.86951	9.81043	8.50823	9.63872	9.59176						
19	8.86776	9.80102	8.49882	9.63106	9.59351	49	8.86957	9.81076	8.50856	9.63898	9.59170						
20	8.86782	9.80135	8.49915	9.63133	9.59345	50	8.86964	9.81108	8.50888	9.63924	9.59163						
21	8.86788	9.80167	8.49947	9.63159	9.59339	51	8.86970	9.81140	8.50920	9.63950	9.59157						
22	8.86794	9.80200	8.49980	9.63186	9.59333	52	8.86976	9.81172	8.50952	9.63976	9.59151						
23	8.86800	9.80233	8.50013	9.63213	9.59327	53	8.86982	9.81204	8.50984	9.64002	9.59145						
24	8.86806	9.80265	8.50045	9.63239	9.59321	54	8.86988	9.81237	8.51017	9.64028	9.59139						
25	8.86812	9.80298	8.50078	9.63266	9.59315	55	8.86994	9.81269	8.51049	9.64054	9.59133						
26	8.86818	9.80330	8.50110	9.63292	9.59309	56	8.87000	9.81301	8.51081	9.64080	9.59127						
27	8.86824	9.80363	8.50143	9.63319	9.59303	57	8.87007	9.81333	8.51113	9.64106	9.59120						
28	8.86830	9.80396	8.50176	9.63345	9.59297	58	8.87013	9.81365	8.51145	9.64132	9.59114						
29	8.86836	9.80428	8.50208	9.63372	9.59291	59	8.87019	9.81397	8.51177	9.64158	9.59108						
30	8.86842	9.80461	8.50241	9.63398	9.59285	60	8.87025	9.81429	8.51209	9.64184	9.59102						
	a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'

Declination 25°.

Diff. 0.00033.

1	1	11	6	21	12
2	1	12	7	22	12
3	2	13	7	23	13
4	2	14	8	24	13
5	3	15	8	25	14
6	3	16	9	26	14
7	4	17	9	27	15
8	4	18	10	28	15
9	5	19	10	29	16
10	6	20	11	30	17

N.P.D. Tables for Star Constants, 1880.

64° to 63° $\kappa=0.4875$. $c'=1.30220$. $d'=0.00000$. 118° to 117°											
	a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'
0	8.87025	9.81429	8.51209	9.64184	9.59102	30	8.87212	9.82385	8.52165	9.64953	9.58915
1	8.87031	9.81461	8.51241	9.64210	9.59096	31	8.87218	9.82416	8.52196	9.64978	9.58909
2	8.87037	9.81493	8.51273	9.64236	9.59090	32	8.87224	9.82448	8.52228	9.65003	9.58903
3	8.87043	9.81525	8.51305	9.64262	9.59084	33	8.87231	9.82479	8.52259	9.65029	9.58896
4	8.87050	9.81557	8.51337	9.64288	9.59077	34	8.87237	9.82511	8.52291	9.65054	9.58890
5	8.87056	9.81589	8.51369	9.64313	9.59071	35	8.87243	9.82543	8.52323	9.65079	9.58884
6	8.87062	9.81621	8.51401	9.64339	9.59065	36	8.87250	9.82574	8.52354	9.65104	9.58877
7	8.87068	9.81653	8.51433	9.64365	9.59059	37	8.87256	9.82606	8.52386	9.65130	9.58871
8	8.87074	9.81685	8.51465	9.64391	9.59053	38	8.87262	9.82637	8.52417	9.65155	9.58865
9	8.87081	9.81717	8.51497	9.64417	9.59046	39	8.87269	9.82669	8.52449	9.65180	9.58858
10	8.87087	9.81749	8.51529	9.64442	9.59040	40	8.87275	9.82700	8.52480	9.65205	9.58852
11	8.87093	9.81781	8.51561	9.64468	9.59034	41	8.87281	9.82732	8.52512	9.65230	9.58846
12	8.87099	9.81813	8.51593	9.64494	9.59028	42	8.87288	9.82763	8.52543	9.65255	9.58839
13	8.87105	9.81845	8.51625	9.64519	9.59022	43	8.87294	9.82795	8.52575	9.65281	9.58833
14	8.87112	9.81877	8.51657	9.64545	9.59015	44	8.87301	9.82826	8.52606	9.65306	9.58826
15	8.87118	9.81909	8.51689	9.64571	9.59009	45	8.87307	9.82858	8.52638	9.65331	9.58820
16	8.87124	9.81940	8.51720	9.64596	9.59003	46	8.87313	9.82889	8.52669	9.65356	9.58814
17	8.87130	9.81972	8.51752	9.64622	9.58997	47	8.87320	9.82920	8.52700	9.65381	9.58807
18	8.87137	9.82004	8.51784	9.64647	9.58990	48	8.87326	9.82952	8.52732	9.65406	9.58801
19	8.87143	9.82036	8.51816	9.64673	9.58984	49	8.87332	9.82983	8.52763	9.65431	9.58795
20	8.87149	9.82068	8.51848	9.64698	9.58978	50	8.87339	9.83015	8.52795	9.65456	9.58788
21	8.87155	9.82099	8.51879	9.64724	9.58972	51	8.87345	9.83046	8.52826	9.65481	9.58782
22	8.87162	9.82131	8.51911	9.64749	9.58965	52	8.87352	9.83077	8.52857	9.65506	9.58775
23	8.87168	9.82163	8.51943	9.64775	9.58959	53	8.87358	9.83109	8.52889	9.65531	9.58769
24	8.87174	9.82195	8.51975	9.64800	9.58953	54	8.87364	9.83140	8.52920	9.65556	9.58763
25	8.87180	9.82226	8.52006	9.64826	9.58947	55	8.87371	9.83171	8.52951	9.65580	9.58756
26	8.87187	9.82258	8.52038	9.64851	9.58940	56	8.87377	9.83203	8.52983	9.65605	9.58750
27	8.87193	9.82290	8.52070	9.64877	9.58934	57	8.87384	9.83234	8.53014	9.65630	9.58743
28	8.87199	9.82321	8.52101	9.64902	9.58928	58	8.87390	9.83265	8.53045	9.65655	9.58737
29	8.87206	9.82353	8.52133	9.64927	9.58921	59	8.87396	9.83296	8.53076	9.65680	9.58731
30	8.87212	9.82385	8.52165	9.64953	9.58915	60	8.87403	9.83328	8.53108	9.65705	9.58724
	a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'

Declination 26°.

Diff. 0.00032.

"	"	"	"	"
1	1	11	6	21
2	1	12	6	22
3	2	13	7	23
4	2	14	7	24
5	3	15	8	25
6	3	16	9	26
7	4	17	9	27
8	4	18	10	28
9	5	19	10	29
10	5	20	11	30

N.P.D. Tables for Star Constants, 1880.

63° to 62°					c' = 1'30220.					d' = 7'00000.					117° to 118°				
w = 0'4875.																			
	a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'		
0	8'87403	9'83328	8'53108	9'65705	9'58724	30	8'87598	9'84259	8'54039	9'66441	9'58429								
1	8'87409	9'83359	8'53139	9'65729	9'58718	31	8'87605	9'84290	8'54070	9'66465	9'58522								
2	8'87416	9'83390	8'53170	9'65754	9'58711	32	8'87611	9'84320	8'54100	9'66489	9'58516								
3	8'87422	9'83421	8'53201	9'65779	9'58705	33	8'87618	9'84351	8'54131	9'66513	9'58509								
4	8'87429	9'83452	8'53232	9'65804	9'58698	34	8'87624	9'84382	8'54162	9'66537	9'58503								
5	8'87435	9'83484	8'53264	9'65828	9'58692	35	8'87631	9'84413	8'54193	9'66562	9'58496								
6	8'87442	9'83515	8'53295	9'65853	9'58685	36	8'87638	9'84444	8'54224	9'66586	9'58489								
7	8'87448	9'83546	8'53326	9'65878	9'58679	37	8'87644	9'84474	8'54254	9'66610	9'58483								
8	8'87455	9'83577	8'53357	9'65902	9'58672	38	8'87651	9'84505	8'54285	9'66634	9'58476								
9	8'87461	9'83608	8'53388	9'65927	9'58666	39	8'87657	9'84536	8'54316	9'66658	9'58470								
10	8'87468	9'83639	8'53419	9'65954	9'58659	40	8'87664	9'84566	8'54346	9'66682	9'58463								
11	8'87474	9'83670	8'53450	9'65976	9'58653	41	8'87671	9'84597	8'54377	9'66706	9'58456								
12	8'87480	9'83701	8'53481	9'66001	9'58647	42	8'87677	9'84628	8'54408	9'66731	9'58450								
13	8'87487	9'83732	8'53512	9'66025	9'58640	43	8'87684	9'84659	8'54439	9'66755	9'58443								
14	8'87493	9'83764	8'53544	9'66050	9'58634	44	8'87691	9'84689	8'54469	9'66779	9'58436								
15	8'87500	9'83795	8'53575	9'66075	9'58627	45	8'87697	9'84720	8'54500	9'66803	9'58430								
16	8'87506	9'83826	8'53606	9'66099	9'58621	46	8'87704	9'84751	8'54531	9'66827	9'58423								
17	8'87513	9'83857	8'53637	9'66124	9'58614	47	8'87711	9'84781	8'54561	9'66851	9'58416								
18	8'87520	9'83888	8'53668	9'66148	9'58607	48	8'87717	9'84812	8'54592	9'66875	9'58410								
19	8'87526	9'83919	8'53699	9'66173	9'58601	49	8'87724	9'84842	8'54622	9'66899	9'58403								
20	8'87533	9'83950	8'53730	9'66197	9'58594	50	8'87731	9'84873	8'54653	9'66922	9'58396								
21	8'87539	9'83981	8'53761	9'66221	9'58588	51	8'87737	9'84904	8'54684	9'66946	9'58390								
22	8'87546	9'84012	8'53792	9'66246	9'58581	52	8'87744	9'84934	8'54714	9'66970	9'58383								
23	8'87552	9'84042	8'53822	9'66270	9'58575	53	8'87751	9'84965	8'54745	9'66994	9'58376								
24	8'87559	9'84073	8'53853	9'66295	9'58568	54	8'87757	9'84995	8'54775	9'67018	9'58370								
25	8'87565	9'84104	8'53884	9'66319	9'58562	55	8'87764	9'85026	8'54806	9'67042	9'58363								
26	8'87572	9'84135	8'53915	9'66343	9'58555	56	8'87771	9'85056	8'54836	9'67066	9'58356								
27	8'87578	9'84166	8'53946	9'66368	9'58549	57	8'87777	9'85087	8'54867	9'67090	9'58350								
28	8'87585	9'84197	8'53977	9'66392	9'58542	58	8'87784	9'85117	8'54897	9'67113	9'58343								
29	8'87592	9'84228	8'54008	9'66416	9'58535	59	8'87791	9'85148	8'54928	9'67137	9'58336								
30	8'87598	9'84259	8'54039	9'66441	9'58529	60	8'87798	9'85178	8'54958	9'67161	9'58329								
	a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'		

Declination 27°.

Diff. 0'00031.

1	1	11	6	21	11
2	1	12	6	22	11
3	2	13	7	23	12
4	2	14	7	24	12
5	3	15	8	25	13
6	3	16	8	26	13
7	4	17	9	27	14
8	4	18	9	28	14
9	5	19	10	29	15
10	5	20	10	30	16

N.P.D. Tables for Star Constants, 1880.

62° to 61°					sc=0.4875.					c'=1.30220.					d'=0.00000.					118° to 119°				
	a=b	c	d	a'=b'	sa'																			
0	8.87798	9.85178	8.54958	9.67161	9.58329	30	8.88001	9.86087	8.55867	9.67866	9.58126													
1	8.87804	9.85209	8.54989	9.67185	9.58323	31	8.88008	9.86118	8.55898	9.67890	9.58119													
2	8.87811	9.85239	8.55019	9.67208	9.58316	32	8.88015	9.86148	8.55928	9.67913	9.58112													
3	8.87818	9.85270	8.55050	9.67232	9.58309	33	8.88022	9.86178	8.55958	9.67936	9.58105													
4	8.87824	9.85300	8.55080	9.67256	9.58303	34	8.88029	9.86208	8.55988	9.67959	9.58098													
5	8.87831	9.85331	8.55111	9.67280	9.58296	35	8.88036	9.86238	8.56018	9.67982	9.58091													
6	8.87838	9.85361	8.55141	9.67303	9.58289	36	8.88042	9.86268	8.56048	9.68006	9.58085													
7	8.87845	9.85391	8.55171	9.67327	9.58282	37	8.88049	9.86298	8.56078	9.68029	9.58078													
8	8.87851	9.85422	8.55202	9.67350	9.58276	38	8.88056	9.86328	8.56108	9.68052	9.58071													
9	8.87858	9.85452	8.55232	9.67374	9.58269	39	8.88063	9.86358	8.56138	9.68075	9.58064													
10	8.87865	9.85483	8.55263	9.67398	9.58262	40	8.88070	9.86388	8.56168	9.68098	9.58057													
11	8.87872	9.85513	8.55293	9.67421	9.58255	41	8.88077	9.86418	8.56198	9.68121	9.58050													
12	8.87878	9.85543	8.55323	9.67445	9.58249	42	8.88084	9.86448	8.56228	9.68144	9.58043													
13	8.87885	9.85574	8.55354	9.67468	9.58242	43	8.88091	9.86478	8.56258	9.68167	9.58036													
14	8.87892	9.85604	8.55384	9.67492	9.58235	44	8.88098	9.86508	8.56288	9.68190	9.58029													
15	8.87899	9.85634	8.55414	9.67515	9.58228	45	8.88105	9.86538	8.56318	9.68213	9.58022													
16	8.87906	9.85665	8.55445	9.67539	9.58221	46	8.88112	9.86568	8.56348	9.68237	9.58015													
17	8.87912	9.85695	8.55475	9.67562	9.58215	47	8.88118	9.86598	8.56378	9.68260	9.58009													
18	8.87919	9.85725	8.55505	9.67586	9.58208	48	8.88125	9.86628	8.56408	9.68283	9.58002													
19	8.87926	9.85755	8.55535	9.67609	9.58201	49	8.88132	9.86658	8.56438	9.68305	9.57995													
20	8.87933	9.85786	8.55566	9.67633	9.58194	50	8.88139	9.86688	8.56468	9.68328	9.57988													
21	8.87940	9.85816	8.55596	9.67656	9.58187	51	8.88146	9.86718	8.56498	9.68351	9.57981													
22	8.87946	9.85846	8.55626	9.67680	9.58181	52	8.88153	9.86748	8.56528	9.68374	9.57974													
23	8.87953	9.85876	8.55656	9.67703	9.58174	53	8.88160	9.86777	8.56557	9.68397	9.57967													
24	8.87960	9.85906	8.55686	9.67726	9.58167	54	8.88167	9.86807	8.56587	9.68420	9.57960													
25	8.87967	9.85937	8.55717	9.67750	9.58160	55	8.88174	9.86837	8.56617	9.68443	9.57953													
26	8.87974	9.85967	8.55747	9.67773	9.58153	56	8.88181	9.86867	8.56647	9.68466	9.57946													
27	8.87981	9.85997	8.55777	9.67796	9.58146	57	8.88188	9.86897	8.56677	9.68489	9.57939													
28	8.87987	9.86027	8.55807	9.67820	9.58140	58	8.88195	9.86927	8.56707	9.68512	9.57932													
29	8.87994	9.86057	8.55837	9.67843	9.58133	59	8.88202	9.86956	8.56736	9.68534	9.57925													
30	8.88001	9.86087	8.55867	9.67866	9.58126	60	8.88209	9.86986	8.56766	9.68557	9.57918													
	a=b	c	d	a'=b'	sa'																			

Declination 28°.

Diff. 0.00030.

1	1	11	6	21	11
2	1	12	6	22	11
3	2	13	7	23	12
4	2	14	7	24	12
5	3	15	8	25	13
6	3	16	8	26	13
7	4	17	9	27	14
8	4	18	9	28	14
9	5	19	10	29	15
10	5	20	10	30	15

N.P.D. Tables for Star Constants, 1880.

61° to 60°						c=0°4875.						c'=1°30220.						d=0°00000.						119° to 120°					
	a=b	c	d	a'=b'	sa'																								
0	8·88209	9·86986	8·56766	9·68557	9·57918	30	8·88421	9·87875	8·57655	9·69234	9·57706																		
1	8·88216	9·87016	8·56796	9·68580	9·57911	31	8·88428	9·87905	8·57685	9·69256	9·57699																		
2	8·88223	9·87046	8·56826	9·68603	9·57904	32	8·88436	9·87934	8·57714	9·69279	9·57691																		
3	8·88230	9·87076	8·56856	9·68625	9·57897	33	8·88443	9·87964	8·57744	9·69301	9·57684																		
4	8·88237	9·87105	8·56885	9·68648	9·57890	34	8·88450	9·87993	8·57773	9·69323	9·57677																		
5	8·88244	9·87135	8·56915	9·68671	9·57883	35	8·88457	9·88022	8·57802	9·69345	9·57670																		
6	8·88251	9·87165	8·56945	9·68694	9·57876	36	8·88464	9·88052	8·57832	9·69368	9·57663																		
7	8·88258	9·87194	8·56974	9·68716	9·57869	37	8·88471	9·88081	8·57861	9·69390	9·57656																		
8	8·88265	9·87224	8·57004	9·68739	9·57862	38	8·88479	9·88111	8·57891	9·69412	9·57648																		
9	8·88272	9·87254	8·57034	9·68762	9·57855	39	8·88486	9·88140	8·57920	9·69434	9·57641																		
10	8·88279	9·87284	8·57064	9·68784	9·57848	40	8·88493	9·88169	8·57949	9·69456	9·57634																		
11	8·88286	9·87313	8·57093	9·68807	9·57841	41	8·88500	9·88199	8·57979	9·69479	9·57627																		
12	8·88293	9·87343	8·57123	9·68829	9·57834	42	8·88507	9·88228	8·58008	9·69501	9·57620																		
13	8·88301	9·87373	8·57153	9·68852	9·57826	43	8·88515	9·88258	8·58038	9·69523	9·57612																		
14	8·88308	9·87402	8·57182	9·68875	9·57819	44	8·88522	9·88287	8·58067	9·69545	9·57605																		
15	8·88315	9·87432	8·57212	9·68897	9·57812	45	8·88529	9·88316	8·58096	9·69567	9·57598																		
16	8·88322	9·87462	8·57242	9·68920	9·57805	46	8·88536	9·88346	8·58126	9·69589	9·57591																		
17	8·88329	9·87491	8·57271	9·68942	9·57798	47	8·88544	9·88375	8·58155	9·69611	9·57583																		
18	8·88336	9·87521	8·57301	9·68965	9·57791	48	8·88551	9·88404	8·58184	9·69633	9·57576																		
19	8·88343	9·87550	8·57330	9·68987	9·57784	49	8·88558	9·88433	8·58213	9·69655	9·57569																		
20	8·88350	9·87580	8·57360	9·69010	9·57777	50	8·88565	9·88463	8·58243	9·69677	9·57562																		
21	8·88357	9·87609	8·57389	9·69032	9·57770	51	8·88572	9·88492	8·58272	9·69699	9·57555																		
22	8·88364	9·87639	8·57419	9·69055	9·57763	52	8·88580	9·88521	8·58301	9·69721	9·57547																		
23	8·88371	9·87669	8·57449	9·69077	9·57756	53	8·88587	9·88550	8·58330	9·69743	9·57540																		
24	8·88379	9·87698	8·57478	9·69100	9·57748	54	8·88594	9·88580	8·58360	9·69765	9·57533																		
25	8·88386	9·87728	8·57508	9·69122	9·57741	55	8·88602	9·88609	8·58389	9·69787	9·57525																		
26	8·88393	9·87757	8·57537	9·69144	9·57734	56	8·88609	9·88638	8·58418	9·69809	9·57518																		
27	8·88400	9·87787	8·57567	9·69167	9·57727	57	8·88616	9·88667	8·58447	9·69831	9·57511																		
28	8·88407	9·87816	8·57596	9·69189	9·57720	58	8·88623	9·88697	8·58477	9·69853	9·57504																		
29	8·88414	9·87846	8·57626	9·69212	9·57713	59	8·88631	9·88726	8·58506	9·69875	9·57496																		
30	8·88421	9·87875	8·57655	9·69234	9·57706	60	8·88638	9·88755	8·58535	9·69897	9·57489																		
	a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'																		

Declination 29°.

Diff. 0°00029.

1	0	11	5	21	10
2	1	12	6	22	11
3	1	13	6	23	11
4	2	14	7	24	12
5	2	15	7	25	12
6	3	16	8	26	13
7	3	17	8	27	13
8	4	18	9	28	14
9	4	19	9	29	14
10	5	20	10	30	15

N.P.D. Tables for Star Constants, 1880.

60° to 59° $\kappa=0.4875.$ $c=1.30220.$ $d=0.00000.$ 120° to 121°					
	a=b	c	d	a'=b'	sa'
0	8.88638	9.88755	8.58535	9.69897	9.57489
1	8.88645	9.88784	8.58564	9.69919	9.57482
2	8.88653	9.88813	8.58593	9.69941	9.57474
3	8.88660	9.88842	8.58622	9.69963	9.57467
4	8.88667	9.88872	8.58652	9.69984	9.57460
5	8.88674	9.88901	8.58681	9.70006	9.57453
6	8.88682	9.88930	8.58710	9.70028	9.57445
7	8.88689	9.88959	8.58739	9.70050	9.57438
8	8.88696	9.88988	8.58768	9.70072	9.57431
9	8.88704	9.89017	8.58797	9.70093	9.57423
10	8.88711	9.89046	8.58826	9.70115	9.57416
11	8.88718	9.89075	8.58855	9.70137	9.57409
12	8.88726	9.89104	8.58884	9.70159	9.57401
13	8.88733	9.89133	8.58913	9.70180	9.57394
14	8.88741	9.89162	8.58942	9.70202	9.57386
15	8.88748	9.89191	8.58971	9.70224	9.57379
16	8.88755	9.89220	8.59000	9.70245	9.57372
17	8.88763	9.89250	8.59030	9.70267	9.57364
18	8.88770	9.89279	8.59059	9.70288	9.57357
19	8.88777	9.89308	8.59088	9.70310	9.57350
20	8.88785	9.89336	8.59116	9.70332	9.57342
21	8.88792	9.89365	8.59145	9.70353	9.57335
22	8.88800	9.89394	8.59174	9.70375	9.57327
23	8.88807	9.89423	8.59203	9.70396	9.57320
24	8.88814	9.89452	8.59232	9.70418	9.57313
25	8.88822	9.89481	8.59261	9.70439	9.57305
26	8.88829	9.89510	8.59290	9.70461	9.57298
27	8.88837	9.89539	8.59319	9.70482	9.57290
28	8.88844	9.89568	8.59348	9.70504	9.57283
29	8.88852	9.89597	8.59377	9.70525	9.57275
30	8.88859	9.89626	8.59406	9.70547	9.57268
31	8.88866	9.89655	8.59435	9.70568	9.57261
32	8.88874	9.89684	8.59464	9.70590	9.57253
33	8.88881	9.89712	8.59492	9.70611	9.57246
34	8.88889	9.89741	8.59521	9.70633	9.57238
35	8.88896	9.89770	8.59550	9.70654	9.57231
36	8.88904	9.89799	8.59579	9.70675	9.57223
37	8.88911	9.89828	8.59608	9.70697	9.57216
38	8.88919	9.89857	8.59637	9.70718	9.57208
39	8.88926	9.89885	8.59665	9.70739	9.57201
40	8.88934	9.89914	8.59694	9.70761	9.57193
41	8.88941	9.89943	8.59723	9.70782	9.57186
42	8.88949	9.89972	8.59752	9.70803	9.57178
43	8.88956	9.90001	8.59781	9.70824	9.57171
44	8.88964	9.90029	8.59809	9.70846	9.57163
45	8.88971	9.90058	8.59838	9.70867	9.57156
46	8.88979	9.90087	8.59867	9.70888	9.57148
47	8.88986	9.90116	8.59896	9.70909	9.57141
48	8.88994	9.90144	8.59924	9.70931	9.57133
49	8.89001	9.90173	8.59953	9.70952	9.57126
50	8.89009	9.90202	8.59982	9.70973	9.57118
51	8.89016	9.90230	8.60010	9.70994	9.57111
52	8.89024	9.90259	8.60039	9.71015	9.57103
53	8.89031	9.90288	8.60068	9.71036	9.57096
54	8.89039	9.90317	8.60097	9.71058	9.57088
55	8.89047	9.90345	8.60125	9.71079	9.57080
56	8.89054	9.90374	8.60154	9.71100	9.57073
57	8.89062	9.90402	8.60182	9.71121	9.57065
58	8.89069	9.90431	8.60211	9.71142	9.57058
59	8.89077	9.90460	8.60240	9.71163	9.57050
60	8.89084	9.90488	8.60268	9.71184	9.57043
	a=b	c	d	a'=b'	sa'

Declination 30°.

Diff, 0.00029.

1	0	11	5	21	10
2	1	12	6	22	11
3	1	13	6	23	11
4	2	14	7	24	12
5	2	15	7	25	12
6	3	16	8	26	13
7	3	17	8	27	13
8	4	18	9	28	14
9	4	19	9	29	14
10	5	20	10	30	15

N.P.D. Tables for Star Constants, 1880.

59° to 58°						κ=0.4875.						c¹=1.30220.						d¹=0.00000.						121° to 122°					
	a=b	c	d	a¹=b¹	sa¹		a=b	c	d	a¹=b¹	sa¹		a=b	c	d	a¹=b¹	sa¹		a=b	c	d	a¹=b¹	sa¹		a=b	c	d	a¹=b¹	sa¹
0	8.89084	9.90488	8.60268	9.71184	9.57043	30	8.89314	9.91345	8.61123	9.71809	9.56813																		
1	8.89092	9.90517	8.60297	9.71205	9.57035	31	8.89322	9.91371	8.61151	9.71829	9.56805																		
2	8.89100	9.90546	8.60326	9.71226	9.57027	32	8.89330	9.91400	8.61180	9.71850	9.56797																		
3	8.89107	9.90574	8.60354	9.71247	9.57020	33	8.89338	9.91428	8.61208	9.71870	9.56789																		
4	8.89115	9.90603	8.60383	9.71268	9.57012	34	8.89345	9.91456	8.61236	9.71891	9.56781																		
5	8.89122	9.90631	8.60411	9.71289	9.57005	35	8.89353	9.91485	8.61265	9.71911	9.56774																		
6	8.89130	9.90660	8.60440	9.71310	9.56997	36	8.89361	9.91513	8.61293	9.71932	9.56766																		
7	8.89138	9.90688	8.60468	9.71331	9.56989	37	8.89369	9.91541	8.61321	9.71952	9.56758																		
8	8.89145	9.90717	8.60497	9.71352	9.56982	38	8.89377	9.91570	8.61350	9.71973	9.56750																		
9	8.89153	9.90746	8.60526	9.71373	9.56974	39	8.89384	9.91598	8.61378	9.71994	9.56743																		
10	8.89161	9.90774	8.60554	9.71393	9.56966	40	8.89392	9.91626	8.61406	9.72014	9.56735																		
11	8.89168	9.90803	8.60583	9.71414	9.56959	41	8.89400	9.91654	8.61434	9.72034	9.56727																		
12	8.89176	9.90831	8.60611	9.71435	9.56951	42	8.89408	9.91683	8.61463	9.72055	9.56719																		
13	8.89184	9.90860	8.60640	9.71456	9.56943	43	8.89415	9.91711	8.61491	9.72075	9.56712																		
14	8.89191	9.90888	8.60668	9.71477	9.56936	44	8.89423	9.91739	8.61519	9.72096	9.56704																		
15	8.89199	9.90917	8.60697	9.71498	9.56928	45	8.89431	9.91767	8.61547	9.72116	9.56696																		
16	8.89207	9.90945	8.60725	9.71519	9.56920	46	8.89439	9.91796	8.61576	9.72137	9.56688																		
17	8.89214	9.90974	8.60754	9.71539	9.56913	47	8.89447	9.91824	8.61604	9.72157	9.56680																		
18	8.89222	9.91002	8.60782	9.71560	9.56905	48	8.89455	9.91852	8.61632	9.72177	9.56672																		
19	8.89230	9.91030	8.60810	9.71581	9.56897	49	8.89462	9.91880	8.61660	9.72198	9.56665																		
20	8.89237	9.91059	8.60839	9.71602	9.56890	50	8.89470	9.91908	8.61688	9.72218	9.56657																		
21	8.89245	9.91087	8.60867	9.71622	9.56882	51	8.89478	9.91937	8.61717	9.72238	9.56649																		
22	8.89253	9.91116	8.60896	9.71643	9.56874	52	8.89486	9.91965	8.61745	9.72259	9.56641																		
23	8.89260	9.91144	8.60924	9.71664	9.56867	53	8.89494	9.91993	8.61773	9.72279	9.56633																		
24	8.89268	9.91173	8.60953	9.71685	9.56859	54	8.89502	9.92021	8.61801	9.72299	9.56625																		
25	8.89276	9.91201	8.60981	9.71705	9.56851	55	8.89510	9.92049	8.61829	9.72320	9.56617																		
26	8.89283	9.91229	8.61009	9.71726	9.56844	56	8.89517	9.92077	8.61857	9.72340	9.56610																		
27	8.89291	9.91258	8.61038	9.71747	9.56836	57	8.89525	9.92106	8.61886	9.72360	9.56602																		
28	8.89299	9.91286	8.61066	9.71767	9.56828	58	8.89533	9.92134	8.61914	9.72381	9.56594																		
29	8.89307	9.91315	8.61095	9.71788	9.56820	59	8.89541	9.92162	8.61942	9.72401	9.56586																		
30	8.89314	9.91343	8.61123	9.71809	9.56813	60	8.89549	9.92190	8.61970	9.72421	9.56578																		
	a=b	c	d	a¹=b¹	sa¹		a=b	c	d	a¹=b¹	sa¹		a=b	c	d	a¹=b¹	sa¹		a=b	c	d	a¹=b¹	sa¹		a=b	c	d	a¹=b¹	sa¹

Declination 31°.

Diff. 0.00028.

1	0	11	5	21	10
2	1	12	6	22	10
3	1	13	6	23	11
4	2	14	7	24	11
5	2	15	7	25	12
6	3	16	7	26	12
7	3	17	8	27	13
8	4	18	8	28	13
9	4	19	9	29	14
10	5	20	9	30	14

N.P.D. Tables for Star Constants, 1880.

58° to 57°		sc=0.4875.		c'=1.30220.		d'=0.00000.		122° to 123°			
	a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'
0	8.89549	9.92190	8.61970	9.72421	9.56578	30	8.89788	9.93030	8.62810	9.73022	9.56339
1	8.89557	9.92218	8.61998	9.72441	9.56570	31	8.89796	9.93058	8.62838	9.73041	9.56331
2	8.89565	9.92246	8.62026	9.72461	9.56562	32	8.89804	9.93085	8.62865	9.73061	9.56323
3	8.89573	9.92274	8.62054	9.72482	9.56554	33	8.89812	9.93113	8.62893	9.73081	9.56315
4	8.89581	9.92302	8.62082	9.72502	9.56546	34	8.89820	9.93141	8.62921	9.73101	9.56307
5	8.89588	9.92330	8.62110	9.72522	9.56539	35	8.89828	9.93169	8.62949	9.73121	9.56299
6	8.89596	9.92358	8.62138	9.72542	9.56531	36	8.89836	9.93197	8.62977	9.73140	9.56291
7	8.89604	9.92387	8.62167	9.72562	9.56523	37	8.89845	9.93225	8.63005	9.73160	9.56282
8	8.89612	9.92415	8.62195	9.72582	9.56515	38	8.89853	9.93253	8.63033	9.73180	9.56274
9	8.89620	9.92443	8.62223	9.72602	9.56507	39	8.89861	9.93280	8.63060	9.73200	9.56266
10	8.89628	9.92471	8.62251	9.72622	9.56499	40	8.89869	9.93308	8.63088	9.73219	9.56258
11	8.89636	9.92499	8.62279	9.72643	9.56491	41	8.89877	9.93336	8.63116	9.73239	9.56250
12	8.89644	9.92527	8.62307	9.72663	9.56483	42	8.89885	9.93364	8.63144	9.73259	9.56242
13	8.89652	9.92555	8.62335	9.72683	9.56475	43	8.89893	9.93392	8.63172	9.73278	9.56234
14	8.89660	9.92583	8.62363	9.72703	9.56467	44	8.89901	9.93419	8.63199	9.73298	9.56226
15	8.89668	9.92611	8.62391	9.72723	9.56459	45	8.89909	9.93447	8.63227	9.73318	9.56218
16	8.89676	9.92639	8.62419	9.72743	9.56451	46	8.89918	9.93475	8.63255	9.73337	9.56209
17	8.89684	9.92667	8.62447	9.72763	9.56443	47	8.89926	9.93503	8.63283	9.73357	9.56201
18	8.89692	9.92695	8.62475	9.72783	9.56435	48	8.89934	9.93530	8.63310	9.73377	9.56193
19	8.89700	9.92723	8.62503	9.72803	9.56427	49	8.89942	9.93558	8.63338	9.73396	9.56185
20	8.89708	9.92751	8.62531	9.72823	9.56419	50	8.89950	9.93586	8.63366	9.73416	9.56177
21	8.89716	9.92779	8.62559	9.72843	9.56411	51	8.89958	9.93614	8.63394	9.73435	9.56169
22	8.89724	9.92806	8.62586	9.72863	9.56403	52	8.89966	9.93641	8.63421	9.73455	9.56161
23	8.89732	9.92834	8.62614	9.72883	9.56395	53	8.89975	9.93669	8.63449	9.73474	9.56152
24	8.89740	9.92862	8.62642	9.72902	9.56387	54	8.89983	9.93697	8.63477	9.73494	9.56144
25	8.89748	9.92890	8.62670	9.72922	9.56379	55	8.89991	9.93724	8.63504	9.73513	9.56136
26	8.89756	9.92918	8.62698	9.72942	9.56371	56	8.89999	9.93751	8.63531	9.73533	9.56128
27	8.89764	9.92946	8.62726	9.72962	9.56363	57	8.90007	9.93780	8.63560	9.73552	9.56120
28	8.89772	9.92974	8.62754	9.72982	9.56355	58	8.90015	9.93807	8.63587	9.73572	9.56112
29	8.89780	9.93002	8.62782	9.73002	9.56347	59	8.90024	9.93835	8.63615	9.73591	9.56103
30	8.89788	9.93030	8.62810	9.73022	9.56339	60	8.90032	9.93863	8.63643	9.73611	9.56095
	a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'

Declination 32°.

Diff. 0.00028.

1	0	11	5	21	10
2	1	12	6	22	10
3	1	13	6	23	11
4	2	14	7	24	11
5	2	15	7	25	12
6	3	16	7	26	12
7	3	17	8	27	13
8	4	18	8	28	13
9	4	19	9	29	14
10	5	20	9	30	14

N.P.D. Tables for Star Constants, 1880.

57° to 56°						30° to 29°					
m=0.4875.						c=1.30220.					
d=0.00000.						123° to 124°					
	a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'
0	8.90032	9.93863	8.63643	9.73611	9.56095	30	8.90280	9.94689	8.64469	9.74189	9.55847
1	8.90040	9.93890	8.63670	9.73630	9.56087	31	8.90289	9.94717	8.64497	9.74208	9.55838
2	8.90048	9.93918	8.63698	9.73650	9.56079	32	8.90297	9.94744	8.64524	9.74227	9.55830
3	8.90056	9.93946	8.63726	9.73669	9.56071	33	8.90305	9.94772	8.64552	9.74246	9.55822
4	8.90065	9.93973	8.63753	9.73689	9.56062	34	8.90314	9.94799	8.64579	9.74265	9.55813
5	8.90073	9.94001	8.63781	9.73708	9.56054	35	8.90322	9.94826	8.64606	9.74284	9.55805
6	8.90081	9.94029	8.63809	9.73727	9.56046	36	8.90331	9.94854	8.64634	9.74303	9.55796
7	8.90089	9.94056	8.63836	9.73747	9.56038	37	8.90339	9.94881	8.64661	9.74322	9.55788
8	8.90098	9.94084	8.63864	9.73766	9.56029	38	8.90347	9.94909	8.64689	9.74341	9.55780
9	8.90106	9.94111	8.63891	9.73785	9.56021	39	8.90356	9.94936	8.64716	9.74360	9.55771
10	8.90114	9.94139	8.63919	9.73805	9.56013	40	8.90364	9.94963	8.64743	9.74379	9.55763
11	8.90122	9.94167	8.63947	9.73824	9.56005	41	8.90373	9.94991	8.64771	9.74398	9.55754
12	8.90131	9.94194	8.63974	9.73843	9.55996	42	8.90381	9.95018	8.64798	9.74417	9.55746
13	8.90139	9.94222	8.64002	9.73863	9.55988	43	8.90389	9.95046	8.64826	9.74436	9.55738
14	8.90147	9.94249	8.64029	9.73882	9.55980	44	8.90398	9.95073	8.64853	9.74455	9.55729
15	8.90156	9.94277	8.64057	9.73901	9.55971	45	8.90406	9.95100	8.64880	9.74474	9.55721
16	8.90164	9.94304	8.64084	9.73921	9.55963	46	8.90415	9.95128	8.64908	9.74493	9.55712
17	8.90172	9.94332	8.64112	9.73940	9.55955	47	8.90423	9.95155	8.64935	9.74512	9.55704
18	8.90180	9.94359	8.64139	9.73959	9.55947	48	8.90432	9.95182	8.64962	9.74531	9.55695
19	8.90189	9.94387	8.64167	9.73978	9.55938	49	8.90440	9.95210	8.64990	9.74549	9.55687
20	8.90197	9.94414	8.64194	9.73997	9.55930	50	8.90449	9.95237	8.65017	9.74568	9.55678
21	8.90205	9.94442	8.64222	9.74017	9.55922	51	8.90457	9.95264	8.65044	9.74587	9.55670
22	8.90214	9.94469	8.64249	9.74036	9.55913	52	8.90466	9.95292	8.65072	9.74606	9.55661
23	8.90222	9.94497	8.64277	9.74055	9.55905	53	8.90474	9.95319	8.65099	9.74625	9.55653
24	8.90230	9.94524	8.64304	9.74074	9.55897	54	8.90483	9.95346	8.65126	9.74644	9.55644
25	8.90239	9.94552	8.64332	9.74093	9.55888	55	8.90491	9.95373	8.65153	9.74662	9.55636
26	8.90247	9.94579	8.64359	9.74113	9.55880	56	8.90500	9.95401	8.65181	9.74681	9.55627
27	8.90255	9.94607	8.64387	9.74132	9.55872	57	8.90508	9.95428	8.65208	9.74700	9.55619
28	8.90264	9.94634	8.64414	9.74151	9.55863	58	8.90517	9.95455	8.65235	9.74719	9.55610
29	8.90272	9.94662	8.64442	9.74170	9.55855	59	8.90525	9.95482	8.65262	9.74737	9.55602
30	8.90280	9.94689	8.64469	9.74189	9.55847	60	8.90534	9.95510	8.65290	9.74756	9.55593
	a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'

Declination 33°.

Diff. 0.00027.

1	0	11	5	21	9
2	1	12	5	22	10
3	1	13	6	23	10
4	2	14	6	24	11
5	2	15	7	25	11
6	3	16	7	26	12
7	3	17	8	27	12
8	4	18	8	28	13
9	4	19	9	29	13
10	5	20	9	30	14

N.P.D. Tables for Star Constants, 1880.

56° to 55°						124° to 125°					
sc=0.4875.						d'=0.00000.					
c'=1.30220.											
	a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'
0	8.90534	9.95510	8.65290	9.74756	9.55593	30	8.90792	9.96324	8.66104	9.75313	9.55335
1	8.90542	9.95537	8.65317	9.74775	9.55585	31	8.90800	9.96351	8.66131	9.75331	9.55327
2	8.90551	9.95564	8.65344	9.74794	9.55576	32	8.90809	9.96379	8.66159	9.75350	9.55318
3	8.90559	9.95591	8.65371	9.74812	9.55568	33	8.90818	9.96406	8.66186	9.75368	9.55309
4	8.90568	9.95619	8.65399	9.74831	9.55559	34	8.90826	9.96433	8.66213	9.75386	9.55301
5	8.90576	9.95646	8.65426	9.74850	9.55551	35	8.90835	9.96460	8.66240	9.75405	9.55292
6	8.90585	9.95673	8.65453	9.74868	9.55542	36	8.90844	9.96487	8.66267	9.75423	9.55283
7	8.90593	9.95700	8.65480	9.74887	9.55534	37	8.90853	9.96514	8.66294	9.75441	9.55274
8	8.90602	9.95728	8.65508	9.74906	9.55525	38	8.90861	9.96541	8.66321	9.75459	9.55266
9	8.90610	9.95755	8.65535	9.74924	9.55517	39	8.90870	9.96568	8.66348	9.75478	9.55257
10	8.90619	9.95782	8.65562	9.74943	9.55508	40	8.90879	9.96595	8.66375	9.75496	9.55248
11	8.90628	9.95809	8.65589	9.74961	9.55499	41	8.90887	9.96622	8.66402	9.75514	9.55240
12	8.90636	9.95836	8.65616	9.74980	9.55491	42	8.90896	9.96649	8.66429	9.75533	9.55231
13	8.90645	9.95863	8.65643	9.74999	9.55482	43	8.90905	9.96676	8.66456	9.75551	9.55222
14	8.90653	9.95891	8.65671	9.75017	9.55474	44	8.90914	9.96703	8.66483	9.75569	9.55213
15	8.90662	9.95918	8.65698	9.75036	9.55465	45	8.90922	9.96730	8.66510	9.75587	9.55205
16	8.90671	9.95945	8.65724	9.75054	9.55456	46	8.90931	9.96757	8.66537	9.75605	9.55196
17	8.90679	9.95972	8.65752	9.75073	9.55448	47	8.90940	9.96784	8.66564	9.75624	9.55187
18	8.90688	9.95999	8.65779	9.75091	9.55439	48	8.90949	9.96811	8.66591	9.75642	9.55178
19	8.90696	9.96026	8.65806	9.75110	9.55431	49	8.90958	9.96838	8.66618	9.75660	9.55169
20	8.90705	9.96053	8.65833	9.75128	9.55422	50	8.90966	9.96865	8.66645	9.75678	9.55161
21	8.90714	9.96081	8.65861	9.75147	9.55413	51	8.90975	9.96891	8.66671	9.75696	9.55152
22	8.90722	9.96108	8.65888	9.75165	9.55405	52	8.90984	9.96918	8.66698	9.75714	9.55143
23	8.90731	9.96135	8.65915	9.75184	9.55396	53	8.90993	9.96945	8.66725	9.75733	9.55134
24	8.90740	9.96162	8.65942	9.75202	9.55387	54	8.91002	9.96972	8.66752	9.75751	9.55125
25	8.90748	9.96189	8.65969	9.75221	9.55379	55	8.91010	9.96999	8.66779	9.75769	9.55117
26	8.90757	9.96216	8.65996	9.75239	9.55370	56	8.91019	9.97026	8.66806	9.75787	9.55108
27	8.90766	9.96243	8.66023	9.75258	9.55361	57	8.91028	9.97053	8.66833	9.75805	9.55099
28	8.90774	9.96270	8.66050	9.75276	9.55353	58	8.91037	9.97080	8.66860	9.75823	9.55090
29	8.90783	9.96297	8.66077	9.75294	9.55344	59	8.91046	9.97107	8.66887	9.75841	9.55081
30	8.90792	9.96324	8.66104	9.75313	9.55335	60	8.91055	9.97134	8.66914	9.75859	9.55072
	a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'

Declination 34°.

Diff. 0.00027.

1	0	11	5	21	9
2	1	12	5	22	10
3	1	13	6	23	10
4	2	14	6	24	11
5	2	15	7	25	11
6	3	16	7	26	12
7	3	17	8	27	12
8	4	18	8	28	13
9	4	19	9	29	13
10	5	20	9	30	14

N.P.D. Tables for Star Constants, 1880.

55° to 54° $\kappa=0.4875.$ $c^1=1.30220.$ $d^1=0.00000.$ 125° to 126°											
	a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'
0	8.91055	9.97134	8.66914	9.75859	9.55072	30	8.91322	9.97938	8.67718	9.76395	9.54805
1	8.91063	9.97161	8.66941	9.75877	9.55064	31	8.91331	9.97965	8.67745	9.76413	9.54796
2	8.91072	9.97187	8.66967	9.75895	9.55055	32	8.91340	9.97991	8.67771	9.76431	9.54787
3	8.91081	9.97214	8.66994	9.75913	9.55046	33	8.91349	9.98018	8.67798	9.76448	9.54778
4	8.91090	9.97241	8.67021	9.75931	9.55037	34	8.91358	9.98045	8.67825	9.76466	9.54769
5	8.91099	9.97268	8.67048	9.75949	9.55028	35	8.91368	9.98071	8.67851	9.76484	9.54759
6	8.91108	9.97295	8.67075	9.75967	9.55019	36	8.91377	9.98098	8.67878	9.76501	9.54750
7	8.91117	9.97322	8.67102	9.75985	9.55010	37	8.91386	9.98125	8.67905	9.76519	9.54741
8	8.91125	9.97349	8.67129	9.76003	9.55002	38	8.91395	9.98151	8.67931	9.76537	9.54732
9	8.91134	9.97375	8.67155	9.76021	9.54993	39	8.91404	9.98178	8.67958	9.76554	9.54723
10	8.91143	9.97402	8.67182	9.76039	9.54984	40	8.91413	9.98205	8.67985	9.76572	9.54714
11	8.91152	9.97429	8.67209	9.76057	9.54975	41	8.91422	9.98231	8.68011	9.76590	9.54705
12	8.91161	9.97456	8.67236	9.76075	9.54966	42	8.91431	9.98258	8.68038	9.76607	9.54696
13	8.91170	9.97483	8.67263	9.76093	9.54957	43	8.91440	9.98285	8.68065	9.76625	9.54687
14	8.91179	9.97510	8.67290	9.76111	9.54948	44	8.91449	9.98311	8.68091	9.76642	9.54678
15	8.91188	9.97536	8.67316	9.76129	9.54939	45	8.91458	9.98338	8.68118	9.76660	9.54669
16	8.91197	9.97563	8.67343	9.76146	9.54930	46	8.91467	9.98365	8.68145	9.76677	9.54660
17	8.91206	9.97590	8.67370	9.76164	9.54921	47	8.91476	9.98391	8.68171	9.76695	9.54651
18	8.91215	9.97617	8.67397	9.76182	9.54912	48	8.91485	9.98418	8.68198	9.76712	9.54642
19	8.91224	9.97644	8.67424	9.76200	9.54903	49	8.91495	9.98445	8.68225	9.76730	9.54632
20	8.91233	9.97670	8.67450	9.76218	9.54894	50	8.91504	9.98471	8.68251	9.76747	9.54623
21	8.91242	9.97697	8.67477	9.76236	9.54885	51	8.91513	9.98498	8.68278	9.76765	9.54614
22	8.91250	9.97724	8.67504	9.76253	9.54877	52	8.91522	9.98524	8.68304	9.76782	9.54605
23	8.91259	9.97751	8.67531	9.76271	9.54868	53	8.91531	9.98551	8.68331	9.76800	9.54596
24	8.91268	9.97777	8.67557	9.76289	9.54859	54	8.91540	9.98578	8.68358	9.76817	9.54587
25	8.91277	9.97804	8.67584	9.76307	9.54850	55	8.91549	9.98604	8.68384	9.76835	9.54578
26	8.91286	9.97831	8.67611	9.76324	9.54841	56	8.91559	9.98631	8.68411	9.76852	9.54568
27	8.91295	9.97858	8.67638	9.76342	9.54832	57	8.91568	9.98657	8.68437	9.76870	9.54559
28	8.91304	9.97884	8.67664	9.76360	9.54823	58	8.91577	9.98684	8.68464	9.76887	9.54550
29	8.91313	9.97911	8.67691	9.76378	9.54814	59	8.91586	9.98711	8.68491	9.76904	9.54541
30	8.91322	9.97938	8.67718	9.76395	9.54805	60	8.91595	9.98737	8.68517	9.76922	9.54532
	a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'

Declination 35°.

Diff. 0.00026.

"	"	"	"	"	"
1	0	11	5	21	9
2	1	12	5	22	10
3	1	13	6	23	10
4	2	14	6	24	10
5	2	15	7	25	11
6	3	16	7	26	11
7	3	17	7	27	12
8	3	18	8	28	12
9	4	19	8	29	13
10	4	20	9	30	13

N.P.D. Tables for Star Constants, 1880.

54° to 53°						126° to 127°					
sc=0.4875.						c'l=1.30220.					
d'l=0.00000.											
	a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'
0	8.91595	9.98737	8.68517	9.76922	9.54532	30	8.91873	9.99532	8.69312	9.77439	9.54254
1	8.91604	9.98764	8.68544	9.76939	9.54523	31	8.91882	9.99558	8.69338	9.77456	9.54245
2	8.91614	9.98790	8.68570	9.76957	9.54513	32	8.91892	9.99585	8.69365	9.77473	9.54235
3	8.91623	9.98817	8.68597	9.76974	9.54504	33	8.91901	9.99611	8.69391	9.77490	9.54226
4	8.91632	9.98843	8.68623	9.76991	9.54495	34	8.91911	9.99638	8.69418	9.77507	9.54216
5	8.91641	9.98870	8.68650	9.77009	9.54486	35	8.91920	9.99664	8.69444	9.77524	9.54207
6	8.91650	9.98896	8.68676	9.77026	9.54477	36	8.91929	9.99690	8.69470	9.77541	9.54198
7	8.91660	9.98923	8.68703	9.77043	9.54467	37	8.91939	9.99717	8.69497	9.77558	9.54188
8	8.91669	9.98949	8.68729	9.77061	9.54458	38	8.91948	9.99743	8.69523	9.77575	9.54179
9	8.91678	9.98976	8.68756	9.77078	9.54449	39	8.91957	9.99769	8.69549	9.77592	9.54170
10	8.91687	9.99003	8.68783	9.77095	9.54440	40	8.91967	9.99796	8.69576	9.77609	9.54160
11	8.91697	9.99029	8.68809	9.77112	9.54430	41	8.91976	9.99822	8.69602	9.77626	9.54151
12	8.91706	9.99056	8.68836	9.77130	9.54421	42	8.91986	9.99849	8.69629	9.77643	9.54141
13	8.91715	9.99082	8.68862	9.77147	9.54412	43	8.91995	9.99875	8.69655	9.77660	9.54132
14	8.91724	9.99109	8.68889	9.77164	9.54403	44	8.92005	9.99901	8.69681	9.77677	9.54122
15	8.91734	9.99135	8.68915	9.77181	9.54393	45	8.92014	9.99928	8.69708	9.77694	9.54113
16	8.91743	9.99162	8.68942	9.77199	9.54384	46	8.92023	9.99954	8.69734	9.77711	9.54104
17	8.91752	9.99188	8.68968	9.77216	9.54375	47	8.92033	9.99980	8.69760	9.77728	9.54094
18	8.91761	9.99214	8.68994	9.77233	9.54366	48	8.92042	0.00007	8.69787	9.77744	9.54085
19	8.91771	9.99241	8.69021	9.77250	9.54356	49	8.92052	0.00033	8.69813	9.77761	9.54075
20	8.91780	9.99267	8.69047	9.77268	9.54347	50	8.92061	0.00059	8.69839	9.77778	9.54066
21	8.91789	9.99294	8.69074	9.77285	9.54338	51	8.92071	0.00086	8.69866	9.77795	9.54056
22	8.91799	9.99320	8.69100	9.77302	9.54328	52	8.92080	0.00112	8.69892	9.77812	9.54047
23	8.91808	9.99347	8.69127	9.77319	9.54319	53	8.92090	0.00138	8.69918	9.77829	9.54037
24	8.91817	9.99373	8.69153	9.77336	9.54310	54	8.92099	0.00165	8.69945	9.77846	9.54028
25	8.91826	9.99400	8.69180	9.77353	9.54301	55	8.92109	0.00191	8.69971	9.77862	9.54018
26	8.91836	9.99426	8.69206	9.77370	9.54291	56	8.92118	0.00217	8.69997	9.77879	9.54009
27	8.91845	9.99453	8.69233	9.77387	9.54282	57	8.92128	0.00244	8.70024	9.77896	9.53999
28	8.91854	9.99479	8.69259	9.77405	9.54273	58	8.92137	0.00270	8.70050	9.77913	9.53990
29	8.91864	9.99505	8.69285	9.77422	9.54263	59	8.92147	0.00296	8.70076	9.77930	9.53980
30	8.91873	9.99532	8.69312	9.77439	9.54254	60	8.92156	0.00322	8.70102	9.77946	9.53971
	a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'

Declination 36°.

Diff. 0.00026.

1	0	11	5	21	9
2	1	12	5	22	10
3	1	13	6	23	10
4	2	14	6	24	10
5	2	15	7	25	11
6	3	16	7	26	11
7	3	17	7	27	12
8	3	18	8	28	12
9	4	19	8	29	13
10	4	20	9	30	13

N.P.D. Tables for Star Constants, 1880.

53° to 52°		s=0°48'5".		c'=1°30'22".		d'=0°00'00".		127° to 126°			
	a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'
0	8'92156	0'00322	8'70102	9'77946	9'53971	30	8'92444	0'01109	8'70889	9'78445	9'53683
1	8'92166	0'00349	8'70129	9'77963	9'53961	31	8'92454	0'01135	8'70915	9'78461	9'53673
2	8'92175	0'00375	8'70155	9'77980	9'53952	32	8'92464	0'01161	8'70941	9'78478	9'53663
3	8'92185	0'00401	8'70181	9'77997	9'53942	33	8'92473	0'01188	8'70968	9'78494	9'53654
4	8'92194	0'00428	8'70208	9'78013	9'53933	34	8'92483	0'01214	8'70994	9'78510	9'53644
5	8'92204	0'00454	8'70234	9'78030	9'53923	35	8'92493	0'01240	8'71020	9'78527	9'53634
6	8'92213	0'00480	8'70260	9'78047	9'53914	36	8'92503	0'01266	8'71046	9'78543	9'53624
7	8'92223	0'00506	8'70286	9'78063	9'53904	37	8'92512	0'01292	8'71072	9'78560	9'53615
8	8'92232	0'00533	8'70313	9'78080	9'53895	38	8'92522	0'01318	8'71098	9'78576	9'53605
9	8'92242	0'00559	8'70339	9'78097	9'53885	39	8'92532	0'01344	8'71124	9'78592	9'53595
10	8'92252	0'00585	8'70365	9'78113	9'53875	40	8'92542	0'01370	8'71150	9'78609	9'53585
11	8'92261	0'00611	8'70391	9'78130	9'53866	41	8'92551	0'01397	8'71177	9'78625	9'53576
12	8'92271	0'00638	8'70418	9'78147	9'53856	42	8'92561	0'01423	8'71203	9'78642	9'53566
13	8'92280	0'00664	8'70444	9'78163	9'53847	43	8'92571	0'01449	8'71229	9'78658	9'53556
14	8'92290	0'00690	8'70470	9'78180	9'53837	44	8'92581	0'01475	8'71255	9'78674	9'53546
15	8'92300	0'00716	8'70496	9'78197	9'53827	45	8'92590	0'01501	8'71281	9'78691	9'53537
16	8'92309	0'00742	8'70522	9'78213	9'53818	46	8'92600	0'01527	8'71307	9'78707	9'53527
17	8'92319	0'00769	8'70549	9'78230	9'53808	47	8'92610	0'01553	8'71333	9'78723	9'53517
18	8'92328	0'00795	8'70575	9'78246	9'53799	48	8'92620	0'01579	8'71359	9'78739	9'53507
19	8'92338	0'00821	8'70601	9'78263	9'53789	49	8'92630	0'01605	8'71385	9'78756	9'53497
20	8'92348	0'00847	8'70627	9'78280	9'53779	50	8'92639	0'01631	8'71411	9'78772	9'53488
21	8'92357	0'00873	8'70653	9'78296	9'53770	51	8'92649	0'01657	8'71437	9'78788	9'53478
22	8'92367	0'00900	8'70680	9'78313	9'53760	52	8'92659	0'01684	8'71464	9'78805	9'53468
23	8'92377	0'00926	8'70706	9'78329	9'53750	53	8'92669	0'01710	8'71490	9'78821	9'53458
24	8'92386	0'00952	8'70732	9'78346	9'53741	54	8'92679	0'01736	8'71516	9'78837	9'53448
25	8'92396	0'00978	8'70758	9'78362	9'53731	55	8'92689	0'01762	8'71542	9'78853	9'53438
26	8'92406	0'01004	8'70784	9'78379	9'53721	56	8'92698	0'01788	8'71568	9'78869	9'53429
27	8'92415	0'01031	8'70811	9'78395	9'53712	57	8'92708	0'01814	8'71594	9'78886	9'53419
28	8'92425	0'01057	8'70837	9'78412	9'53702	58	8'92718	0'01840	8'71620	9'78902	9'53409
29	8'92435	0'01083	8'70863	9'78428	9'53692	59	8'92728	0'01866	8'71646	9'78918	9'53399
30	8'92444	0'01109	8'70889	9'78445	9'53683	60	8'92738	0'01892	8'71672	9'78934	9'53389
	a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'

Declination 37°.

Diff. 0.00026.

1	0	11	5	21	9
2	1	12	5	22	10
3	1	13	6	23	10
4	2	14	6	24	10
5	2	15	7	25	11
6	3	16	7	26	11
7	3	17	7	27	12
8	3	18	8	28	12
9	4	19	8	29	13
10	4	20	9	30	13

N.P.D. Tables for Star Constants, 1880.

52° to 51°						128° to 129°					
sc=0.4875.						c'=1.30220.					
d'=0.00000											
	a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'
0	8.92738	0.01892	8.71672	9.78934	9.53389	30	8.93037	0.02672	8.72452	9.79415	9.53090
1	8.92748	0.01918	8.71698	9.78950	9.53379	31	8.93047	0.02697	8.72477	9.79431	9.53080
2	8.92758	0.01944	8.71724	9.78967	9.53369	32	8.93057	0.02723	8.72503	9.79447	9.53070
3	8.92767	0.01970	8.71750	9.78983	9.53360	33	8.93067	0.02749	8.72529	9.79463	9.53060
4	8.92777	0.01996	8.71776	9.78999	9.53350	34	8.93077	0.02775	8.72555	9.79478	9.53050
5	8.92787	0.02022	8.71802	9.79015	9.53340	35	8.93087	0.02801	8.72581	9.79494	9.53040
6	8.92797	0.02048	8.71828	9.79031	9.53330	36	8.93097	0.02827	8.72607	9.79510	9.53030
7	8.92807	0.02074	8.71854	9.79047	9.53320	37	8.93107	0.02853	8.72633	9.79526	9.53020
8	8.92817	0.02100	8.71880	9.79063	9.53310	38	8.93117	0.02879	8.72659	9.79542	9.53010
9	8.92827	0.02126	8.71906	9.79079	9.53300	39	8.93127	0.02905	8.72685	9.79558	9.53000
10	8.92837	0.02152	8.71932	9.79095	9.53290	40	8.93137	0.02931	8.72711	9.79573	9.52990
11	8.92847	0.02178	8.71958	9.79111	9.53280	41	8.93147	0.02957	8.72737	9.79589	9.52980
12	8.92857	0.02204	8.71984	9.79128	9.53270	42	8.93158	0.02982	8.72762	9.79605	9.52969
13	8.92867	0.02230	8.72010	9.79144	9.53260	43	8.93168	0.03008	8.72788	9.79621	9.52959
14	8.92877	0.02256	8.72036	9.79160	9.53250	44	8.93178	0.03034	8.72814	9.79636	9.52949
15	8.92887	0.02282	8.72062	9.79176	9.53240	45	8.93188	0.03060	8.72840	9.79652	9.52939
16	8.92896	0.02308	8.72088	9.79192	9.53231	46	8.93198	0.03086	8.72866	9.79668	9.52929
17	8.92906	0.02334	8.72114	9.79208	9.53221	47	8.93208	0.03112	8.72892	9.79684	9.52919
18	8.92916	0.02360	8.72140	9.79224	9.53211	48	8.93218	0.03138	8.72918	9.79699	9.52909
19	8.92926	0.02386	8.72166	9.79240	9.53201	49	8.93229	0.03164	8.72944	9.79715	9.52898
20	8.92936	0.02412	8.72192	9.79256	9.53191	50	8.93239	0.03189	8.72969	9.79731	9.52888
21	8.92946	0.02438	8.72218	9.79272	9.53181	51	8.93249	0.03215	8.72995	9.79746	9.52878
22	8.92956	0.02464	8.72244	9.79288	9.53171	52	8.93259	0.03241	8.73021	9.79762	9.52868
23	8.92966	0.02490	8.72270	9.79304	9.53161	53	8.93269	0.03267	8.73047	9.79778	9.52858
24	8.92976	0.02516	8.72296	9.79319	9.53151	54	8.93279	0.03293	8.73073	9.79793	9.52848
25	8.92986	0.02542	8.72322	9.79335	9.53141	55	8.93290	0.03319	8.73099	9.79809	9.52837
26	8.92996	0.02568	8.72348	9.79351	9.53131	56	8.93300	0.03345	8.73125	9.79825	9.52827
27	8.93006	0.02594	8.72374	9.79367	9.53121	57	8.93310	0.03370	8.73150	9.79840	9.52817
28	8.93016	0.02620	8.72400	9.79383	9.53111	58	8.93320	0.03396	8.73176	9.79856	9.52807
29	8.93027	0.02646	8.72426	9.79399	9.53100	59	8.93331	0.03422	8.73202	9.79872	9.52796
30	8.93037	0.02672	8.72452	9.79415	9.53090	60	8.93341	0.03448	8.73228	9.79887	9.52786
	a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'

Declination 38°.

Diff. 0.00026.

1	0	11	5	21	9
2	1	12	5	22	10
3	1	13	6	23	10
4	2	14	6	24	10
5	2	15	7	25	11
6	3	16	7	26	11
7	3	17	7	27	12
8	3	18	8	28	12
9	4	19	8	29	13
10	4	20	9	30	13

N.P.D. Tables for Star Constants, 1880.

51° to 50°						c=0.4875.						c'=1.30220.						d'=0.00000.						129° to 130°					
	a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'
0	8.93341	0.03448	8.73228	9.79887	9.52786	30	8.93650	0.04221	8.74001	9.80351	9.52477																		
1	8.93351	0.03474	8.73254	9.79903	9.52776	31	8.93661	0.04247	8.74027	9.80366	9.52466																		
2	8.93361	0.03500	8.73280	9.79918	9.52766	32	8.93671	0.04273	8.74053	9.80382	9.52456																		
3	8.93371	0.03525	8.73305	9.79934	9.52756	33	8.93682	0.04299	8.74079	9.80397	9.52445																		
4	8.93382	0.03551	8.73331	9.79950	9.52745	34	8.93692	0.04324	8.74104	9.80412	9.52435																		
5	8.93392	0.03577	8.73357	9.79965	9.52735	35	8.93703	0.04350	8.74130	9.80428	9.52424																		
6	8.93402	0.03603	8.73383	9.79981	9.52725	36	8.93713	0.04376	8.74156	9.80443	9.52414																		
7	8.93412	0.03629	8.73409	9.79996	9.52715	37	8.93723	0.04402	8.74182	9.80458	9.52404																		
8	8.93423	0.03654	8.73434	9.80012	9.52704	38	8.93734	0.04427	8.74207	9.80473	9.52393																		
9	8.93433	0.03680	8.73460	9.80027	9.52694	39	8.93744	0.04453	8.74233	9.80489	9.52383																		
10	8.93443	0.03706	8.73486	9.80043	9.52684	40	8.93755	0.04479	8.74259	9.80504	9.52372																		
11	8.93454	0.03732	8.73512	9.80058	9.52673	41	8.93765	0.04504	8.74284	9.80519	9.52362																		
12	8.93464	0.03758	8.73538	9.80074	9.52663	42	8.93776	0.04530	8.74310	9.80534	9.52351																		
13	8.93474	0.03783	8.73563	9.80089	9.52653	43	8.93786	0.04556	8.74336	9.80550	9.52341																		
14	8.93485	0.03809	8.73589	9.80105	9.52642	44	8.93797	0.04582	8.74362	9.80565	9.52330																		
15	8.93495	0.03835	8.73615	9.80120	9.52632	45	8.93807	0.04607	8.74387	9.80580	9.52320																		
16	8.93505	0.03861	8.73641	9.80136	9.52622	46	8.93818	0.04633	8.74413	9.80595	9.52309																		
17	8.93516	0.03887	8.73667	9.80151	9.52611	47	8.93828	0.04659	8.74439	9.80610	9.52299																		
18	8.93526	0.03912	8.73692	9.80166	9.52601	48	8.93839	0.04684	8.74464	9.80625	9.52288																		
19	8.93536	0.03938	8.73718	9.80182	9.52591	49	8.93849	0.04710	8.74490	9.80641	9.52278																		
20	8.93547	0.03964	8.73744	9.80197	9.52580	50	8.93860	0.04736	8.74516	9.80656	9.52267																		
21	8.93557	0.03990	8.73770	9.80213	9.52570	51	8.93870	0.04761	8.74541	9.80671	9.52257																		
22	8.93567	0.04015	8.73795	9.80228	9.52560	52	8.93881	0.04787	8.74567	9.80686	9.52246																		
23	8.93578	0.04041	8.73821	9.80244	9.52549	53	8.93892	0.04813	8.74593	9.80701	9.52235																		
24	8.93588	0.04067	8.73847	9.80259	9.52539	54	8.93902	0.04838	8.74618	9.80716	9.52225																		
25	8.93598	0.04093	8.73873	9.80274	9.52529	55	8.93913	0.04864	8.74644	9.80731	9.52214																		
26	8.93609	0.04118	8.73898	9.80290	9.52518	56	8.93923	0.04890	8.74670	9.80746	9.52204																		
27	8.93619	0.04144	8.73924	9.80305	9.52508	57	8.93934	0.04915	8.74695	9.80762	9.52193																		
28	8.93630	0.04170	8.73950	9.80320	9.52497	58	8.93944	0.04941	8.74721	9.80777	9.52183																		
29	8.93640	0.04196	8.73976	9.80336	9.52487	59	8.93955	0.04967	8.74747	9.80792	9.52172																		
30	8.93650	0.04221	8.74001	9.80351	9.52477	60	8.93966	0.04992	8.74772	9.80807	9.52161																		
	a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'

Declination 39°.

Diff. 0.00025.

1	0	11	5	21	9
2	1	12	5	22	9
3	1	13	5	23	10
4	2	14	6	24	10
5	2	15	6	25	10
6	3	16	7	26	11
7	3	17	7	27	11
8	3	18	8	28	12
9	4	19	8	29	12
10	4	20	8	30	13

N.P.D. Tables for Star Constants, 1880.

50° to 49°						180° to 181°					
ac=0.4875.						c'=1.30220.					
d'=0.00000.											
	a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'
0	8.93966	0.04992	8.74772	9.80807	9.52161	30	8.94286	0.05761	8.75541	9.81254	9.51841
1	8.93976	0.05018	8.74798	9.80822	9.52151	31	8.94297	0.05786	8.75566	9.81269	9.51830
2	8.93987	0.05044	8.74824	9.80837	9.52140	32	8.94308	0.05812	8.75592	9.81284	9.51819
3	8.93997	0.05069	8.74849	9.80852	9.52130	33	8.94319	0.05838	8.75618	9.81299	9.51808
4	8.94008	0.05095	8.74875	9.80867	9.52119	34	8.94330	0.05863	8.75643	9.81314	9.51797
5	8.94019	0.05121	8.74901	9.80882	9.52108	35	8.94340	0.05889	8.75669	9.81328	9.51787
6	8.94029	0.05146	8.74926	9.80897	9.52098	36	8.94351	0.05914	8.75694	9.81343	9.51776
7	8.94040	0.05172	8.74952	9.80912	9.52087	37	8.94362	0.05940	8.75720	9.81358	9.51765
8	8.94051	0.05198	8.74978	9.80927	9.52076	38	8.94373	0.05965	8.75745	9.81372	9.51754
9	8.94061	0.05223	8.75003	9.80942	9.52066	39	8.94384	0.05991	8.75771	9.81387	9.51743
10	8.94072	0.05249	8.75029	9.80957	9.52055	40	8.94395	0.06017	8.75797	9.81402	9.51732
11	8.94083	0.05274	8.75054	9.80972	9.52044	41	8.94406	0.06042	8.75822	9.81417	9.51721
12	8.94093	0.05300	8.75080	9.80987	9.52034	42	8.94416	0.06068	8.75848	9.81431	9.51711
13	8.94104	0.05326	8.75106	9.81002	9.52023	43	8.94427	0.06093	8.75873	9.81446	9.51700
14	8.94115	0.05351	8.75131	9.81017	9.52012	44	8.94438	0.06119	8.75899	9.81461	9.51689
15	8.94125	0.05377	8.75157	9.81032	9.52002	45	8.94449	0.06144	8.75924	9.81475	9.51678
16	8.94136	0.05403	8.75183	9.81047	9.51991	46	8.94460	0.06170	8.75950	9.81490	9.51667
17	8.94147	0.05428	8.75208	9.81061	9.51980	47	8.94471	0.06195	8.75975	9.81505	9.51656
18	8.94157	0.05454	8.75234	9.81076	9.51970	48	8.94482	0.06221	8.76001	9.81519	9.51645
19	8.94168	0.05479	8.75259	9.81091	9.51959	49	8.94493	0.06247	8.76027	9.81534	9.51634
20	8.94179	0.05505	8.75285	9.81106	9.51948	50	8.94504	0.06272	8.76052	9.81549	9.51623
21	8.94190	0.05531	8.75311	9.81121	9.51937	51	8.94514	0.06298	8.76078	9.81563	9.51613
22	8.94200	0.05556	8.75336	9.81136	9.51927	52	8.94525	0.06323	8.76103	9.81578	9.51602
23	8.94211	0.05582	8.75362	9.81151	9.51916	53	8.94536	0.06349	8.76129	9.81592	9.51591
24	8.94222	0.05607	8.75387	9.81166	9.51905	54	8.94547	0.06374	8.76154	9.81607	9.51580
25	8.94233	0.05633	8.75413	9.81180	9.51894	55	8.94558	0.06400	8.76180	9.81622	9.51569
26	8.94243	0.05659	8.75439	9.81195	9.51884	56	8.94569	0.06425	8.76205	9.81636	9.51558
27	8.94254	0.05684	8.75464	9.81210	9.51873	57	8.94580	0.06451	8.76231	9.81651	9.51547
28	8.94265	0.05710	8.75490	9.81225	9.51862	58	8.94591	0.06476	8.76256	9.81665	9.51536
29	8.94276	0.05735	8.75515	9.81240	9.51851	59	8.94602	0.06502	8.76282	9.81680	9.51525
30	8.94286	0.05761	8.75541	9.81254	9.51841	60	8.94613	0.06527	8.76307	9.81694	9.51514
	a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'

Declination 40°.

Diff. 0.00026.

<i>n</i>	<i>n</i>	<i>n</i>
1	0	11
2	1	12
3	1	13
4	2	14
5	2	15
6	3	16
7	3	17
8	3	18
9	4	19
10	4	20
		9
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N.P.D. Tables for Star Constants, 1880.

49° to 48°						c¹=1'30220.						d¹=0'00000.						131° to 132°						
sc=0'4875.																								
	a=b	c	d	a¹=b¹	sa¹																			
0	8'94613	0'06527	8'76307	9'81694	9'51514	30	8'94945	0'07292	8'77072	9'82126	9'51182													
1	8'94624	0'06553	8'76333	9'81709	9'51503	31	8'94957	0'07317	8'77097	9'82141	9'51170													
2	8'94635	0'06578	8'76358	9'81723	9'51492	32	8'94968	0'07343	8'77123	9'82155	9'51159													
3	8'94646	0'06604	8'76384	9'81738	9'51481	33	8'94979	0'07368	8'77148	9'82169	9'51148													
4	8'94657	0'06629	8'76409	9'81752	9'51470	34	8'94990	0'07394	8'77174	9'82184	9'51137													
5	8'94668	0'06655	8'76435	9'81767	9'51459	35	8'95001	0'07419	8'77199	9'82198	9'51126													
6	8'94679	0'06680	8'76460	9'81781	9'51448	36	8'95013	0'07445	8'77225	9'82212	9'51114													
7	8'94690	0'06706	8'76486	9'81796	9'51437	37	8'95024	0'07470	8'77250	9'82226	9'51103													
8	8'94701	0'06731	8'76511	9'81810	9'51426	38	8'95035	0'07495	8'77275	9'82240	9'51092													
9	8'94712	0'06757	8'76537	9'81825	9'51415	39	8'95046	0'07521	8'77301	9'82255	9'51081													
10	8'94723	0'06782	8'76562	9'81839	9'51404	40	8'95057	0'07546	8'77326	9'82269	9'51070													
11	8'94734	0'06808	8'76588	9'81854	9'51393	41	8'95069	0'07572	8'77352	9'82283	9'51058													
12	8'94745	0'06833	8'76613	9'81868	9'51382	42	8'95080	0'07597	8'77377	9'82297	9'51047													
13	8'94756	0'06859	8'76639	9'81882	9'51371	43	8'95091	0'07623	8'77403	9'82311	9'51036													
14	8'94767	0'06884	8'76664	9'81897	9'51360	44	8'95103	0'07648	8'77428	9'82326	9'51024													
15	8'94778	0'06910	8'76690	9'81911	9'51349	45	8'95114	0'07673	8'77453	9'82340	9'51013													
16	8'94790	0'06935	8'76715	9'81926	9'51337	46	8'95125	0'07699	8'77479	9'82354	9'51002													
17	8'94801	0'06961	8'76741	9'81940	9'51326	47	8'95136	0'07724	8'77504	9'82368	9'50991													
18	8'94812	0'06986	8'76766	9'81955	9'51315	48	8'95148	0'07750	8'77530	9'82382	9'50979													
19	8'94823	0'07012	8'76792	9'81969	9'51304	49	8'95159	0'07775	8'77555	9'82396	9'50968													
20	8'94834	0'07037	8'76817	9'81983	9'51293	50	8'95170	0'07801	8'77581	9'82410	9'50957													
21	8'94845	0'07063	8'76843	9'81998	9'51282	51	8'95182	0'07826	8'77606	9'82424	9'50945													
22	8'94856	0'07088	8'76868	9'82012	9'51271	52	8'95193	0'07852	8'77631	9'82439	9'50934													
23	8'94867	0'07114	8'76894	9'82026	9'51260	53	8'95204	0'07877	8'77657	9'82453	9'50923													
24	8'94878	0'07139	8'76919	9'82041	9'51249	54	8'95216	0'07902	8'77682	9'82467	9'50911													
25	8'94890	0'07165	8'76945	9'82055	9'51237	55	8'95227	0'07928	8'77708	9'82481	9'50900													
26	8'94901	0'07190	8'76970	9'82069	9'51226	56	8'95238	0'07953	8'77733	9'82495	9'50889													
27	8'94912	0'07215	8'76995	9'82084	9'51215	57	8'95250	0'07979	8'77759	9'82509	9'50877													
28	8'94923	0'07241	8'77021	9'82098	9'51204	58	8'95261	0'08004	8'77784	9'82523	9'50866													
29	8'94934	0'07266	8'77046	9'82112	9'51193	59	8'95272	0'08029	8'77809	9'82537	9'50855													
30	8'94945	0'07292	8'77072	9'82126	9'51182	60	8'95284	0'08055	8'77835	9'82551	9'50843													
	a=b	c	d	a¹=b¹	sa¹																			
	a=b	c	d	a¹=b¹	sa¹																			

Declination 41°.

Diff. 0'00026.

"	"	"	"	"	"
1	0	11	5	21	9
2	1	12	5	22	10
3	1	13	6	23	10
4	2	14	6	24	10
5	2	15	7	25	11
6	3	16	7	26	11
7	3	17	7	27	12
8	3	18	8	28	12
9	4	19	8	29	13
10	4	20	9	30	13

N.P.D. Tables for Star Constants, 1880.

48° to 47°					30° to 29°					182° to 183°							
a=0°4875.					c=1°30220.					d=0°00000.							
	a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'
0	8'95284	0'08055	8'77835	9'82551	9'50843	30	8'95628	0'08816	8'78596	9'82968	9'50499						
1	8'95295	0'08080	8'77860	9'82565	9'50832	31	8'95639	0'08842	8'78622	9'82982	9'50488						
2	8'95306	0'08106	8'77886	9'82579	9'50821	32	8'95651	0'08867	8'78647	9'82996	9'50476						
3	8'95318	0'08131	8'77911	9'82593	9'50809	33	8'95663	0'08892	8'78672	9'83010	9'50464						
4	8'95329	0'08156	8'77936	9'82607	9'50798	34	8'95674	0'08918	8'78698	9'83023	9'50453						
5	8'95341	0'08182	8'77962	9'82621	9'50786	35	8'95686	0'08943	8'78723	9'83037	9'50441						
6	8'95352	0'08207	8'77987	9'82635	9'50775	36	8'95697	0'08968	8'78748	9'83051	9'50430						
7	8'95363	0'08233	8'78013	9'82649	9'50764	37	8'95709	0'08994	8'78774	9'83065	9'50418						
8	8'95375	0'08258	8'78038	9'82663	9'50752	38	8'95721	0'09019	8'78799	9'83078	9'50406						
9	8'95386	0'08283	8'78063	9'82677	9'50741	39	8'95732	0'09044	8'78824	9'83092	9'50395						
10	8'95398	0'08309	8'78089	9'82691	9'50729	40	8'95744	0'09070	8'78850	9'83106	9'50383						
11	8'95409	0'08334	8'78114	9'82705	9'50718	41	8'95756	0'09095	8'78875	9'83120	9'50371						
12	8'95421	0'08359	8'78139	9'82719	9'50706	42	8'95767	0'09121	8'78901	9'83133	9'50360						
13	8'95432	0'08385	8'78165	9'82733	9'50695	43	8'95779	0'09146	8'78926	9'83147	9'50348						
14	8'95444	0'08410	8'78190	9'82747	9'50683	44	8'95791	0'09171	8'78951	9'83161	9'50336						
15	8'95455	0'08436	8'78216	9'82761	9'50672	45	8'95802	0'09197	8'78977	9'83174	9'50325						
16	8'95467	0'08461	8'78241	9'82775	9'50660	46	8'95814	0'09222	8'79002	9'83188	9'50313						
17	8'95478	0'08486	8'78266	9'82788	9'50649	47	8'95826	0'09247	8'79027	9'83202	9'50301						
18	8'95489	0'08512	8'78292	9'82802	9'50638	48	8'95837	0'09273	8'79053	9'83215	9'50290						
19	8'95501	0'08537	8'78317	9'82816	9'50626	49	8'95849	0'09298	8'79078	9'83229	9'50278						
20	8'95512	0'08563	8'78343	9'82830	9'50615	50	8'95861	0'09323	8'79103	9'83242	9'50266						
21	8'95524	0'08588	8'78368	9'82844	9'50603	51	8'95873	0'09349	8'79129	9'83256	9'50254						
22	8'95536	0'08613	8'78393	9'82858	9'50591	52	8'95884	0'09374	8'79154	9'83270	9'50243						
23	8'95547	0'08639	8'78419	9'82872	9'50580	53	8'95896	0'09399	8'79179	9'83283	9'50231						
24	8'95559	0'08664	8'78444	9'82885	9'50568	54	8'95908	0'09425	8'79205	9'83297	9'50219						
25	8'95570	0'08689	8'78469	9'82899	9'50557	55	8'95919	0'09450	8'79230	9'83310	9'50208						
26	8'95582	0'08715	8'78495	9'82913	9'50545	56	8'95931	0'09475	8'79255	9'83324	9'50196						
27	8'95593	0'08740	8'78520	9'82927	9'50534	57	8'95943	0'09501	8'79281	9'83338	9'50184						
28	8'95605	0'08766	8'78546	9'82941	9'50522	58	8'95955	0'09526	8'79306	9'83351	9'50172						
29	8'95616	0'08791	8'78571	9'82955	9'50511	59	8'95966	0'09551	8'79331	9'83365	9'50161						
30	8'95628	0'08816	8'78596	9'82968	9'50499	60	8'95978	0'09577	8'79357	9'83378	9'50149						
	a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'

Declination 42°.

Diff. 0'00026.

<i>n</i>	<i>n</i>	<i>n</i>	<i>n</i>	<i>n</i>	<i>n</i>
1	0	11	5	21	9
2	1	12	5	22	10
3	1	13	6	23	10
4	2	14	6	24	10
5	2	15	7	25	11
6	3	16	7	26	11
7	3	17	7	27	12
8	3	18	8	28	12
9	4	19	8	29	13
10	4	20	9	30	13

N.P.D. Tables for Star Constants, 1880.

47° to 48°					sc=0.4875.					c'=1.30220.					d'=0.00000.					133° to 134°				
	a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'	
0	8.95978	0.09577	8.79357	9.83378	9.50149	30	8.96335	0.10336	8.80116	9.83781	9.49792													
1	8.95990	0.09602	8.79382	9.83392	9.50137	31	8.96347	0.10361	8.80141	9.83795	9.49780													
2	8.96002	0.09627	8.79407	9.83405	9.50125	32	8.96359	0.10387	8.80167	9.83808	9.49768													
3	8.96014	0.09653	8.79433	9.83419	9.50113	33	8.96371	0.10412	8.80192	9.83821	9.49756													
4	8.96025	0.09678	8.79458	9.83432	9.50102	34	8.96383	0.10437	8.80217	9.83834	9.49744													
5	8.96037	0.09703	8.79483	9.83446	9.50090	35	8.96395	0.10462	8.80242	9.83848	9.49732													
6	8.96049	0.09729	8.79509	9.83459	9.50078	36	8.96407	0.10488	8.80268	9.83861	9.49720													
7	8.96061	0.09754	8.79534	9.83473	9.50066	37	8.96419	0.10513	8.80293	9.83874	9.49708													
8	8.96073	0.09779	8.79559	9.83486	9.50054	38	8.96431	0.10538	8.80318	9.83887	9.49696													
9	8.96085	0.09804	8.79584	9.83500	9.50042	39	8.96443	0.10564	8.80344	9.83901	9.49684													
10	8.96096	0.09830	8.79610	9.83513	9.50031	40	8.96455	0.10589	8.80369	9.83914	9.49672													
11	8.96108	0.09855	8.79635	9.83527	9.50019	41	8.96467	0.10614	8.80394	9.83927	9.49660													
12	8.96120	0.09880	8.79660	9.83540	9.50007	42	8.96479	0.10640	8.80420	9.83940	9.49648													
13	8.96132	0.09906	8.79686	9.83554	9.49995	43	8.96491	0.10665	8.80445	9.83954	9.49636													
14	8.96144	0.09931	8.79711	9.83567	9.49983	44	8.96503	0.10690	8.80470	9.83967	9.49624													
15	8.96156	0.09956	8.79736	9.83581	9.49971	45	8.96515	0.10715	8.80495	9.83980	9.49612													
16	8.96168	0.09982	8.79762	9.83594	9.49959	46	8.96527	0.10741	8.80521	9.83993	9.49600													
17	8.96180	0.10007	8.79787	9.83608	9.49947	47	8.96540	0.10766	8.80546	9.84006	9.49587													
18	8.96191	0.10032	8.79812	9.83621	9.49936	48	8.96552	0.10791	8.80571	9.84020	9.49575													
19	8.96203	0.10058	8.79838	9.83634	9.49924	49	8.96564	0.10817	8.80597	9.84033	9.49563													
20	8.96215	0.10083	8.79863	9.83648	9.49912	50	8.96576	0.10842	8.80622	9.84046	9.49551													
21	8.96227	0.10108	8.79888	9.83661	9.49900	51	8.96588	0.10867	8.80647	9.84059	9.49539													
22	8.96239	0.10134	8.79914	9.83674	9.49888	52	8.96600	0.10892	8.80672	9.84072	9.49527													
23	8.96251	0.10159	8.79939	9.83688	9.49876	53	8.96612	0.10918	8.80698	9.84085	9.49515													
24	8.96263	0.10184	8.79964	9.83701	9.49864	54	8.96625	0.10943	8.80723	9.84098	9.49502													
25	8.96275	0.10209	8.79989	9.83715	9.49852	55	8.96637	0.10968	8.80748	9.84112	9.49490													
26	8.96287	0.10235	8.80015	9.83728	9.49840	56	8.96649	0.10994	8.80774	9.84125	9.49478													
27	8.96299	0.10260	8.80040	9.83741	9.49828	57	8.96661	0.11019	8.80799	9.84138	9.49466													
28	8.96311	0.10285	8.80065	9.83755	9.49816	58	8.96673	0.11044	8.80824	9.84151	9.49454													
29	8.96323	0.10311	8.80091	9.83768	9.49804	59	8.96685	0.11069	8.80849	9.84164	9.49442													
30	8.96335	0.10336	8.80116	9.83781	9.49792	60	8.96698	0.11095	8.80875	9.84177	9.49429													
	a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'	

Declination 43°.

Diff. 0.00025.

1	0	11	5	21	9
2	1	12	5	22	9
3	1	13	5	23	10
4	2	14	6	24	10
5	2	15	6	25	10
6	3	16	7	26	11
7	3	17	7	27	11
8	3	18	8	28	12
9	4	19	8	29	12
10	4	20	8	30	13

N.P.D. Tables for Star Constants, 1880.

46° to 45°					184° to 185°						
κ=0.4875.					c'=1.30220.						
d'=0.00000.											
	a=b	c	d	a'=b'	aa'		a=b	c	d	a'=b'	aa'
0	8.96698	0.11095	8.80875	9.84177	9.49429	30	8.97067	0.11853	8.81633	9.84566	9.49060
1	8.96710	0.11120	8.80900	9.84190	9.49417	31	8.97079	0.11878	8.81658	9.84579	9.49048
2	8.96722	0.11145	8.80925	9.84203	9.49405	32	8.97092	0.11904	8.81684	9.84592	9.49035
3	8.96734	0.11171	8.80951	9.84216	9.49393	33	8.97104	0.11929	8.81709	9.84605	9.49023
4	8.96746	0.11196	8.80976	9.84229	9.49381	34	8.97117	0.11954	8.81734	9.84618	9.49010
5	8.96759	0.11221	8.81001	9.84242	9.49368	35	8.97129	0.11979	8.81759	9.84630	9.48998
6	8.96771	0.11246	8.81026	9.84255	9.49356	36	8.97141	0.12005	8.81785	9.84643	9.48986
7	8.96783	0.11272	8.81052	9.84269	9.49344	37	8.97154	0.12030	8.81810	9.84656	9.48973
8	8.96795	0.11297	8.81077	9.84282	9.49332	38	8.97166	0.12055	8.81835	9.84669	9.48961
9	8.96808	0.11322	8.81102	9.84295	9.49319	39	8.97179	0.12080	8.81860	9.84682	9.48948
10	8.96820	0.11348	8.81128	9.84308	9.49307	40	8.97191	0.12106	8.81886	9.84694	9.48936
11	8.96832	0.11373	8.81153	9.84321	9.49295	41	8.97204	0.12131	8.81911	9.84707	9.48923
12	8.96844	0.11398	8.81178	9.84334	9.49283	42	8.97216	0.12156	8.81936	9.84720	9.48911
13	8.96857	0.11423	8.81203	9.84347	9.49270	43	8.97229	0.12181	8.81961	9.84733	9.48898
14	8.96869	0.11449	8.81229	9.84360	9.49258	44	8.97241	0.12207	8.81987	9.84745	9.48886
15	8.96881	0.11474	8.81254	9.84373	9.49246	45	8.97254	0.12232	8.82012	9.84758	9.48873
16	8.96894	0.11499	8.81279	9.84385	9.49233	46	8.97266	0.12257	8.82037	9.84771	9.48861
17	8.96906	0.11524	8.81304	9.84398	9.49221	47	8.97279	0.12283	8.82063	9.84784	9.48848
18	8.96918	0.11550	8.81330	9.84411	9.49209	48	8.97291	0.12308	8.82088	9.84796	9.48836
19	8.96931	0.11575	8.81355	9.84424	9.49196	49	8.97304	0.12333	8.82113	9.84809	9.48823
20	8.96943	0.11600	8.81380	9.84437	9.49184	50	8.97317	0.12358	8.82138	9.84822	9.48810
21	8.96955	0.11626	8.81406	9.84450	9.49172	51	8.97329	0.12384	8.82164	9.84835	9.48798
22	8.96968	0.11651	8.81431	9.84463	9.49159	52	8.97342	0.12409	8.82189	9.84847	9.48785
23	8.96980	0.11676	8.81456	9.84476	9.49147	53	8.97354	0.12434	8.82214	9.84860	9.48773
24	8.96992	0.11701	8.81481	9.84489	9.49135	54	8.97367	0.12459	8.82239	9.84873	9.48760
25	8.97005	0.11727	8.81507	9.84502	9.49122	55	8.97379	0.12485	8.82265	9.84885	9.48748
26	8.97017	0.11752	8.81532	9.84515	9.49110	56	8.97392	0.12510	8.82290	9.84898	9.48735
27	8.97030	0.11777	8.81557	9.84528	9.49097	57	8.97405	0.12535	8.82315	9.84911	9.48722
28	8.97042	0.11802	8.81582	9.84540	9.49085	58	8.97417	0.12560	8.82340	9.84923	9.48710
29	8.97054	0.11828	8.81608	9.84553	9.49073	59	8.97430	0.12586	8.82366	9.84936	9.48697
30	8.97067	0.11853	8.81633	9.84566	9.49060	60	8.97442	0.12611	8.82391	9.84949	9.48685
	a=b	c	d	a'=b'	aa'		a=b	c	d	a'=b'	aa'

Declination 44°.

Diff. 0.00025.

<i>n</i>	<i>n</i>	<i>n</i>
1	0	11
2	1	12
3	1	13
4	2	14
5	2	15
6	3	16
7	3	17
8	3	18
9	4	19
10	4	20
		21
		22
		23
		24
		25
		26
		27
		28
		29
		30

N.P.D. Tables for Star Constants, 1880.

45° to 44° $\kappa=0.4875.$ $\bar{c}=1.30220.$ $d=0.00000.$ 135° to 136°											
	a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'
0	8.97442	0.12611	8.82391	9.84949	9.48685	30	8.97825	0.13369	8.83149	9.85324	9.48302
1	8.97455	0.12636	8.82416	9.84961	9.48672	31	8.97838	0.13394	8.83174	9.85337	9.48289
2	8.97468	0.12662	8.82442	9.84974	9.48659	32	8.97851	0.13420	8.83200	9.85349	9.48276
3	8.97480	0.12687	8.82467	9.84986	9.48647	33	8.97863	0.13445	8.83225	9.85361	9.48264
4	8.97493	0.12712	8.82492	9.84999	9.48634	34	8.97876	0.13470	8.83250	9.85374	9.48251
5	8.97506	0.12737	8.82517	9.85012	9.48621	35	8.97889	0.13495	8.83275	9.85386	9.48238
6	8.97518	0.12763	8.82543	9.85024	9.48609	36	8.97902	0.13521	8.83301	9.85399	9.48225
7	8.97531	0.12788	8.82568	9.85037	9.48596	37	8.97915	0.13546	8.83326	9.85411	9.48212
8	8.97544	0.12813	8.82593	9.85049	9.48583	38	8.97928	0.13571	8.83351	9.85423	9.48199
9	8.97556	0.12838	8.82618	9.85062	9.48571	39	8.97941	0.13596	8.83376	9.85436	9.48186
10	8.97569	0.12864	8.82644	9.85074	9.48558	40	8.97954	0.13622	8.83402	9.85448	9.48173
11	8.97582	0.12889	8.82669	9.85087	9.48545	41	8.97967	0.13647	8.83427	9.85460	9.48160
12	8.97595	0.12914	8.82694	9.85100	9.48532	42	8.97980	0.13672	8.83452	9.85473	9.48147
13	8.97607	0.12939	8.82719	9.85112	9.48520	43	8.97993	0.13698	8.83478	9.85485	9.48134
14	8.97620	0.12965	8.82745	9.85125	9.48507	44	8.98006	0.13723	8.83503	9.85497	9.48121
15	8.97633	0.12990	8.82770	9.85137	9.48494	45	8.98018	0.13748	8.83528	9.85510	9.48109
16	8.97646	0.13015	8.82795	9.85150	9.48481	46	8.98031	0.13773	8.83553	9.85522	9.48096
17	8.97658	0.13041	8.82821	9.85162	9.48469	47	8.98044	0.13799	8.83579	9.85534	9.48083
18	8.97671	0.13066	8.82846	9.85175	9.48456	48	8.98057	0.13824	8.83604	9.85547	9.48070
19	8.97684	0.13091	8.82871	9.85187	9.48443	49	8.98070	0.13849	8.83629	9.85559	9.48057
20	8.97697	0.13116	8.82896	9.85200	9.48430	50	8.98083	0.13874	8.83654	9.85571	9.48044
21	8.97709	0.13142	8.82922	9.85212	9.48418	51	8.98096	0.13900	8.83680	9.85583	9.48031
22	8.97722	0.13167	8.82947	9.85225	9.48405	52	8.98109	0.13925	8.83705	9.85596	9.48018
23	8.97735	0.13192	8.82973	9.85237	9.48392	53	8.98122	0.13950	8.83730	9.85608	9.48005
24	8.97748	0.13217	8.82997	9.85250	9.48379	54	8.98136	0.13976	8.83756	9.85620	9.47991
25	8.97761	0.13243	8.83023	9.85262	9.48366	55	8.98149	0.14001	8.83781	9.85632	9.47978
26	8.97773	0.13268	8.83048	9.85274	9.48354	56	8.98162	0.14026	8.83806	9.85645	9.47965
27	8.97786	0.13293	8.83073	9.85287	9.48341	57	8.98175	0.14051	8.83831	9.85657	9.47952
28	8.97799	0.13318	8.83098	9.85299	9.48328	58	8.98188	0.14077	8.83857	9.85669	9.47939
29	8.97812	0.13344	8.83124	9.85312	9.48315	59	8.98201	0.14102	8.83882	9.85681	9.47926
30	8.97825	0.13369	8.83149	9.85324	9.48302	60	8.98214	0.14127	8.83907	9.85693	9.47913
	a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'

Declination 45°.

Diff. 0.00025.

1	0	11	5	21	9
2	1	12	5	22	9
3	1	13	5	23	10
4	2	14	6	24	10
5	2	15	6	25	10
6	3	16	7	26	11
7	3	17	7	27	11
8	3	18	8	28	12
9	4	19	8	29	12
10	4	20	8	30	13

N.P.D. Tables for Star Constants, 1880.

44° to 43°		c=0'4875.		c'=1'30220.		d'=0'00000.		186° to 187°			
	a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'
0	8'98214	0'14127	8'83907	9'85693	9'47913	30	8'98610	0'14886	8'84666	9'86056	9'47517
1	8'98227	0'14153	8'83933	9'85706	9'47900	31	8'98623	0'14911	8'84691	9'86068	9'47504
2	8'98240	0'14178	8'83958	9'85718	9'47887	32	8'98636	0'14937	8'84717	9'86080	9'47491
3	8'98253	0'14203	8'83983	9'85730	9'47874	33	8'98650	0'14962	8'84742	9'86092	9'47477
4	8'98266	0'14228	8'84008	9'85742	9'47861	34	8'98663	0'14987	8'84767	9'86104	9'47464
5	8'98279	0'14254	8'84034	9'85754	9'47848	35	8'98676	0'15013	8'84793	9'86116	9'47451
6	8'98293	0'14279	8'84059	9'85766	9'47834	36	8'98690	0'15038	8'84818	9'86128	9'47437
7	8'98306	0'14304	8'84084	9'85779	9'47821	37	8'98703	0'15063	8'84843	9'86140	9'47424
8	8'98319	0'14330	8'84110	9'85791	9'47808	38	8'98717	0'15088	8'84868	9'86152	9'47410
9	8'98332	0'14355	8'84135	9'85803	9'47795	39	8'98730	0'15114	8'84894	9'86164	9'47397
10	8'98345	0'14380	8'84160	9'85815	9'47782	40	8'98743	0'15139	8'84919	9'86176	9'47384
11	8'98358	0'14405	8'84185	9'85827	9'47769	41	8'98757	0'15164	8'84944	9'86188	9'47370
12	8'98371	0'14431	8'84211	9'85839	9'47756	42	8'98770	0'15190	8'84970	9'86200	9'47357
13	8'98385	0'14456	8'84236	9'85851	9'47742	43	8'98783	0'15215	8'84995	9'86211	9'47344
14	8'98398	0'14481	8'84261	9'85864	9'47729	44	8'98797	0'15240	8'85020	9'86223	9'47330
15	8'98411	0'14507	8'84287	9'85876	9'47716	45	8'98810	0'15266	8'85046	9'86235	9'47317
16	8'98424	0'14532	8'84312	9'85888	9'47703	46	8'98824	0'15291	8'85071	9'86247	9'47303
17	8'98437	0'14557	8'84337	9'85900	9'47690	47	8'98837	0'15316	8'85096	9'86259	9'47290
18	8'98451	0'14582	8'84362	9'85912	9'47676	48	8'98851	0'15342	8'85122	9'86271	9'47276
19	8'98464	0'14608	8'84388	9'85924	9'47663	49	8'98864	0'15367	8'85147	9'86283	9'47263
20	8'98477	0'14633	8'84413	9'85936	9'47650	50	8'98878	0'15392	8'85172	9'86295	9'47249
21	8'98490	0'14658	8'84438	9'85948	9'47637	51	8'98891	0'15418	8'85198	9'86306	9'47236
22	8'98504	0'14684	8'84464	9'85960	9'47623	52	8'98905	0'15443	8'85223	9'86318	9'47222
23	8'98517	0'14709	8'84489	9'85972	9'47610	53	8'98918	0'15468	8'85248	9'86330	9'47209
24	8'98530	0'14734	8'84514	9'85984	9'47597	54	8'98932	0'15493	8'85273	9'86342	9'47195
25	8'98543	0'14760	8'84540	9'85996	9'47584	55	8'98945	0'15519	8'85299	9'86354	9'47182
26	8'98557	0'14785	8'84565	9'86008	9'47570	56	8'98959	0'15544	8'85324	9'86366	9'47168
27	8'98570	0'14810	8'84590	9'86020	9'47557	57	8'98972	0'15569	8'85349	9'86377	9'47155
28	8'98583	0'14835	8'84615	9'86032	9'47544	58	8'98986	0'15595	8'85375	9'86389	9'47141
29	8'98596	0'14861	8'84641	9'86044	9'47531	59	8'98999	0'15620	8'85400	9'86401	9'47128
30	8'98610	0'14886	8'84666	9'86056	9'47517	60	8'99013	0'15645	8'85425	9'86413	9'47114
	a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'

Declination 46°.

Diff. 0'00025.

1	0	11	5	21	9
2	1	12	5	22	9
3	1	13	5	23	10
4	2	14	6	24	10
5	2	15	6	25	10
6	3	16	7	26	11
7	3	17	7	27	11
8	3	18	8	28	12
9	4	19	8	29	12
10	4	20	8	30	13

N.P.D. Tables for Star Constants, 1880.

43° to 42°		sc=0'4875.		c'=1'30220.		d'=0'00000.		137° to 138°			
	a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'
0	8'99013	0'15645	8'85425	9'86413	9'47114	30	8'99423	0'16406	8'86186	9'86763	9'46704
1	8'99026	0'15671	8'85451	9'86425	9'47101	31	8'99436	0'16431	8'86211	9'86775	9'46691
2	8'99040	0'15696	8'85476	9'86436	9'47087	32	8'99450	0'16456	8'86236	9'86786	9'46677
3	8'99053	0'15721	8'85501	9'86448	9'47074	33	8'99464	0'16482	8'86262	9'86798	9'46663
4	8'99067	0'15747	8'85527	9'86460	9'47060	34	8'99478	0'16507	8'86287	9'86809	9'46649
5	8'99081	0'15772	8'85552	9'86472	9'47046	35	8'99492	0'16533	8'86313	9'86821	9'46635
6	8'99094	0'15797	8'85577	9'86483	9'47033	36	8'99506	0'16558	8'86338	9'86832	9'46621
7	8'99108	0'15823	8'85603	9'86495	9'47019	37	8'99519	0'16583	8'86363	9'86844	9'46608
8	8'99121	0'15848	8'85628	9'86507	9'47006	38	8'99533	0'16609	8'86389	9'86855	9'46594
9	8'99135	0'15873	8'85653	9'86518	9'46992	39	8'99547	0'16634	8'86414	9'86867	9'46580
10	8'99149	0'15899	8'85679	9'86530	9'46978	40	8'99561	0'16659	8'86439	9'86879	9'46566
11	8'99162	0'15924	8'85704	9'86542	9'46965	41	8'99575	0'16685	8'86465	9'86890	9'46552
12	8'99176	0'15949	8'85729	9'86554	9'46951	42	8'99589	0'16710	8'86490	9'86902	9'46538
13	8'99189	0'15975	8'85755	9'86565	9'46938	43	8'99603	0'16736	8'86516	9'86913	9'46524
14	8'99203	0'16000	8'85780	9'86577	9'46924	44	8'99616	0'16761	8'86541	9'86924	9'46511
15	8'99217	0'16025	8'85805	9'86589	9'46910	45	8'99630	0'16786	8'86566	9'86936	9'46497
16	8'99230	0'16051	8'85831	9'86600	9'46897	46	8'99644	0'16812	8'86592	9'86947	9'46483
17	8'99244	0'16076	8'85856	9'86612	9'46883	47	8'99658	0'16837	8'86617	9'86959	9'46469
18	8'99258	0'16101	8'85881	9'86624	9'46869	48	8'99672	0'16863	8'86643	9'86970	9'46455
19	8'99271	0'16127	8'85907	9'86635	9'46856	49	8'99686	0'16888	8'86668	9'86982	9'46441
20	8'99285	0'16152	8'85932	9'86647	9'46842	50	8'99700	0'16913	8'86693	9'86993	9'46427
21	8'99299	0'16178	8'85958	9'86659	9'46828	51	8'99714	0'16939	8'86719	9'87005	9'46413
22	8'99313	0'16203	8'85983	9'86670	9'46814	52	8'99728	0'16964	8'86744	9'87016	9'46399
23	8'99326	0'16228	8'86008	9'86682	9'46801	53	8'99742	0'16989	8'86769	9'87028	9'46385
24	8'99340	0'16254	8'86034	9'86694	9'46787	54	8'99756	0'17015	8'86795	9'87039	9'46371
25	8'99354	0'16279	8'86059	9'86705	9'46773	55	8'99770	0'17040	8'86820	9'87050	9'46357
26	8'99368	0'16304	8'86084	9'86717	9'46759	56	8'99784	0'17066	8'86846	9'87062	9'46343
27	8'99381	0'16330	8'86110	9'86728	9'46746	57	8'99798	0'17091	8'86871	9'87073	9'46329
28	8'99395	0'16355	8'86135	9'86740	9'46732	58	8'99812	0'17116	8'86896	9'87085	9'46315
29	8'99409	0'16380	8'86160	9'86752	9'46718	59	8'99826	0'17142	8'86922	9'87096	9'46301
30	8'99423	0'16406	8'86186	9'86763	9'46704	60	8'99840	0'17167	8'86947	9'87107	9'46287
	a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'

Declination 47°.

Diff. 0'00025.

1	0	11	5	21	9
2	1	12	5	22	9
3	1	13	5	23	10
4	2	14	6	24	10
5	2	15	6	25	10
6	3	16	7	26	11
7	3	17	7	27	11
8	3	18	8	28	12
9	4	19	8	29	12
10	4	20	8	30	13

N.P.D. Tables for Star Constants, 1880.

42° to 41°					sc=0°4875.					c1=1°30220.					d1=0°00000. 138° to 139°				
	a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'								
0	8°99840	0°17167	8°86947	9°87107	9°46287	30	9°00265	0°17930	8°87710	9°87446	9°45862								
1	8°99854	0°17193	8°86973	9°87119	9°46273	31	9°00279	0°17956	8°87736	9°87457	9°45848								
2	8°99868	0°17218	8°86998	9°87130	9°46259	32	9°00293	0°17981	8°87761	9°87468	9°45834								
3	8°99882	0°17243	8°87023	9°87141	9°46245	33	9°00307	0°18007	8°87787	9°87479	9°45820								
4	8°99896	0°17269	8°87049	9°87153	9°46231	34	9°00322	0°18032	8°87812	9°87490	9°45805								
5	8°99910	0°17294	8°87074	9°87164	9°46217	35	9°00336	0°18057	8°87837	9°87501	9°45791								
6	8°99924	0°17320	8°87100	9°87175	9°46203	36	9°00350	0°18083	8°87863	9°87513	9°45777								
7	8°99938	0°17345	8°87125	9°87187	9°46189	37	9°00365	0°18108	8°87888	9°87524	9°45762								
8	8°99952	0°17371	8°87151	9°87198	9°46175	38	9°00379	0°18134	8°87914	9°87535	9°45748								
9	8°99967	0°17396	8°87176	9°87209	9°46160	39	9°00393	0°18159	8°87939	9°87546	9°45734								
10	8°99981	0°17421	8°87201	9°87221	9°46146	40	9°00408	0°18185	8°87965	9°87557	9°45719								
11	8°99995	0°17447	8°87227	9°87232	9°46132	41	9°00422	0°18210	8°87990	9°87568	9°45705								
12	9°00009	0°17472	8°87252	9°87243	9°46118	42	9°00436	0°18236	8°88016	9°87579	9°45691								
13	9°00023	0°17498	8°87278	9°87255	9°46104	43	9°00451	0°18261	8°88041	9°87590	9°45676								
14	9°00037	0°17523	8°87303	9°87266	9°46090	44	9°00465	0°18287	8°88067	9°87601	9°45662								
15	9°00051	0°17549	8°87329	9°87277	9°46076	45	9°00480	0°18312	8°88092	9°87613	9°45647								
16	9°00065	0°17574	8°87354	9°87288	9°46062	46	9°00494	0°18338	8°88118	9°87624	9°45633								
17	9°00080	0°17599	8°87379	9°87300	9°46047	47	9°00509	0°18363	8°88143	9°87635	9°45618								
18	9°00094	0°17625	8°87405	9°87311	9°46033	48	9°00523	0°18389	8°88169	9°87646	9°45604								
19	9°00108	0°17650	8°87430	9°87322	9°46019	49	9°00537	0°18414	8°88194	9°87657	9°45590								
20	9°00122	0°17676	8°87456	9°87334	9°46005	50	9°00552	0°18440	8°88220	9°87668	9°45575								
21	9°00136	0°17701	8°87481	9°87345	9°45991	51	9°00566	0°18465	8°88245	9°87679	9°45561								
22	9°00151	0°17727	8°87507	9°87356	9°45976	52	9°00581	0°18491	8°88271	9°87690	9°45546								
23	9°00165	0°17752	8°87532	9°87367	9°45962	53	9°00595	0°18516	8°88296	9°87701	9°45532								
24	9°00179	0°17777	8°87557	9°87378	9°45948	54	9°00610	0°18542	8°88322	9°87712	9°45517								
25	9°00193	0°17803	8°87583	9°87390	9°45934	55	9°00624	0°18567	8°88347	9°87723	9°45503								
26	9°00207	0°17828	8°87608	9°87401	9°45920	56	9°00639	0°18593	8°88373	9°87734	9°45488								
27	9°00222	0°17854	8°87634	9°87412	9°45905	57	9°00653	0°18618	8°88398	9°87745	9°45474								
28	9°00236	0°17879	8°87659	9°87423	9°45891	58	9°00668	0°18644	8°88424	9°87756	9°45459								
29	9°00250	0°17905	8°87685	9°87434	9°45877	59	9°00682	0°18669	8°88449	9°87767	9°45445								
30	9°00265	0°17930	8°87710	9°87446	9°45862	60	9°00697	0°18695	8°88475	9°87778	9°45430								
	a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'								

Declination 48°.

Diff. 0°00'02.6.

1	0	11	5	21	9
2	1	12	5	22	10
3	1	13	6	23	10
4	2	14	6	24	10
5	2	15	7	25	11
6	3	16	7	26	11
7	3	17	7	27	12
8	3	18	8	28	12
9	4	19	8	29	13
10	4	20	9	30	13

N.P.D. Tables for Star Constants, 1880.

41° to 40° $\kappa=0.4875$ $c'=1.30220$ $d'=0.00000$ 139° to 140°											
	a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'
0	9.00697	0.18695	8.88475	9.87778	9.45430	30	9.01137	0.19461	8.89241	9.88105	9.44990
1	9.00711	0.18720	8.88500	9.87789	9.45416	31	9.01151	0.19487	8.89267	9.88115	9.44976
2	9.00726	0.18746	8.88526	9.87800	9.45401	32	9.01166	0.19512	8.89292	9.88126	9.44961
3	9.00740	0.18771	8.88551	9.87811	9.45387	33	9.01181	0.19538	8.89318	9.88137	9.44946
4	9.00755	0.18797	8.88577	9.87822	9.45372	34	9.01196	0.19563	8.89343	9.88148	9.44931
5	9.00769	0.18822	8.88602	9.87833	9.45358	35	9.01211	0.19589	8.89369	9.88158	9.44916
6	9.00784	0.18848	8.88628	9.87844	9.45343	36	9.01225	0.19615	8.89395	9.88169	9.44902
7	9.00799	0.18873	8.88653	9.87855	9.45328	37	9.01240	0.19640	8.89420	9.88180	9.44887
8	9.00813	0.18899	8.88679	9.87866	9.45314	38	9.01255	0.19666	8.89446	9.88191	9.44872
9	9.00828	0.18924	8.88704	9.87877	9.45299	39	9.01270	0.19691	8.89471	9.88201	9.44857
10	9.00842	0.18950	8.88730	9.87887	9.45285	40	9.01285	0.19717	8.89497	9.88212	9.44842
11	9.00857	0.18975	8.88755	9.87898	9.45270	41	9.01300	0.19743	8.89523	9.88223	9.44827
12	9.00872	0.19001	8.88781	9.87909	9.45255	42	9.01315	0.19768	8.89548	9.88234	9.44812
13	9.00886	0.19027	8.88807	9.87920	9.45241	43	9.01330	0.19794	8.89574	9.88244	9.44797
14	9.00901	0.19052	8.88832	9.87931	9.45226	44	9.01344	0.19819	8.89599	9.88255	9.44783
15	9.00916	0.19078	8.88858	9.87942	9.45211	45	9.01359	0.19845	8.89625	9.88266	9.44768
16	9.00930	0.19103	8.88883	9.87953	9.45197	46	9.01374	0.19871	8.89651	9.88276	9.44753
17	9.00945	0.19129	8.88909	9.87964	9.45182	47	9.01389	0.19896	8.89676	9.88287	9.44738
18	9.00960	0.19154	8.88934	9.87975	9.45167	48	9.01404	0.19922	8.89702	9.88298	9.44723
19	9.00974	0.19180	8.88960	9.87985	9.45153	49	9.01419	0.19948	8.89728	9.88308	9.44708
20	9.00989	0.19205	8.88985	9.87996	9.45138	50	9.01434	0.19973	8.89753	9.88319	9.44693
21	9.01004	0.19231	8.89011	9.88007	9.45123	51	9.01449	0.19999	8.89779	9.88330	9.44678
22	9.01018	0.19257	8.89037	9.88018	9.45109	52	9.01464	0.20024	8.89804	9.88340	9.44663
23	9.01033	0.19282	8.89062	9.88029	9.45094	53	9.01479	0.20050	8.89830	9.88351	9.44648
24	9.01048	0.19308	8.89088	9.88040	9.45079	54	9.01494	0.20076	8.89856	9.88362	9.44633
25	9.01063	0.19333	8.89113	9.88051	9.45064	55	9.01509	0.20101	8.89881	9.88372	9.44618
26	9.01077	0.19359	8.89139	9.88061	9.45050	56	9.01524	0.20127	8.89907	9.88383	9.44603
27	9.01092	0.19384	8.89164	9.88072	9.45035	57	9.01539	0.20153	8.89933	9.88394	9.44588
28	9.01107	0.19410	8.89190	9.88083	9.45020	58	9.01554	0.20178	8.89958	9.88404	9.44573
29	9.01122	0.19436	8.89216	9.88094	9.45005	59	9.01569	0.20204	8.89984	9.88415	9.44558
30	9.01137	0.19461	8.89241	9.88105	9.44990	60	9.01584	0.20230	9.90010	9.88425	9.44543
	a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'

Declination 40°.

Diff. 0.00026.

"	"	"	"	"	"
1	0	11	5	21	9
2	1	12	5	22	10
3	1	13	6	23	10
4	2	14	6	24	10
5	2	15	6	25	11
6	3	16	7	26	11
7	3	17	7	27	12
8	3	18	8	28	12
9	4	19	8	29	13
10	4	20	9	30	13

N.P.D. Tables for Star Constants, 1880.

40° to 39°						c' = 1'30220.						d' = 0'00000. 140° to 141°					
	a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'
0	9'01584	0'20230	8'90010	9'88425	9'44543	30	9'02040	0'21001	8'90781	9'88741	9'44087						
1	9'01599	0'20255	8'90035	9'88436	9'44528	31	9'02055	0'21026	8'90806	9'88751	9'44072						
2	9'01614	0'20281	8'90061	9'88447	9'44513	32	9'02071	0'21052	8'90832	9'88761	9'44056						
3	9'01629	0'20307	8'90087	9'88457	9'44498	33	9'02086	0'21078	8'90858	9'88772	9'44041						
4	9'01645	0'20332	8'90112	9'88468	9'44482	34	9'02101	0'21104	8'90884	9'88782	9'44026						
5	9'01660	0'20358	8'90138	9'88478	9'44467	35	9'02117	0'21129	8'90909	9'88793	9'44010						
6	9'01675	0'20384	8'90164	9'88489	9'44452	36	9'02132	0'21155	8'90935	9'88803	9'43995						
7	9'01690	0'20409	8'90189	9'88499	9'44437	37	9'02147	0'21181	8'90961	9'88813	9'43980						
8	9'01705	0'20435	8'90215	9'88510	9'44422	38	9'02163	0'21207	8'90987	9'88824	9'43964						
9	9'01720	0'20461	8'90241	9'88521	9'44407	39	9'02178	0'21232	8'91012	9'88834	9'43949						
10	9'01735	0'20486	8'90266	9'88531	9'44392	40	9'02194	0'21258	8'91038	9'88844	9'43933						
11	9'01750	0'20512	8'90292	9'88542	9'44377	41	9'02209	0'21284	8'91064	9'88855	9'43918						
12	9'01766	0'20538	8'90318	9'88552	9'44361	42	9'02225	0'21310	8'91090	9'88865	9'43902						
13	9'01781	0'20563	8'90343	9'88563	9'44346	43	9'02240	0'21335	8'91115	9'88875	9'43887						
14	9'01796	0'20589	8'90369	9'88573	9'44331	44	9'02255	0'21361	8'91141	9'88886	9'43872						
15	9'01811	0'20615	8'90395	9'88584	9'44316	45	9'02271	0'21387	8'91167	9'88896	9'43856						
16	9'01826	0'20640	8'90420	9'88594	9'44301	46	9'02286	0'21413	8'91193	9'88906	9'43841						
17	9'01841	0'20666	8'90446	9'88605	9'44286	47	9'02302	0'21439	8'91219	9'88917	9'43825						
18	9'01857	0'20692	8'90472	9'88615	9'44270	48	9'02317	0'21464	8'91244	9'88927	9'43810						
19	9'01872	0'20718	8'90498	9'88626	9'44255	49	9'02333	0'21490	8'91270	9'88937	9'43794						
20	9'01887	0'20743	8'90523	9'88636	9'44240	50	9'02348	0'21516	8'91296	9'88948	9'43779						
21	9'01902	0'20769	8'90549	9'88647	9'44225	51	9'02364	0'21542	8'91322	9'88958	9'43763						
22	9'01918	0'20795	8'90575	9'88657	9'44209	52	9'02379	0'21568	8'91348	9'88968	9'43748						
23	9'01933	0'20820	8'90600	9'88668	9'44194	53	9'02395	0'21593	8'91373	9'88978	9'43732						
24	9'01948	0'20846	8'90626	9'88678	9'44179	54	9'02410	0'21619	8'91399	9'88989	9'43717						
25	9'01963	0'20872	8'90652	9'88688	9'44164	55	9'02426	0'21645	8'91425	9'88999	9'43701						
26	9'01979	0'20898	8'90678	9'88699	9'44148	56	9'02441	0'21671	8'91451	9'89009	9'43686						
27	9'01994	0'20923	8'90703	9'88709	9'44133	57	9'02457	0'21697	8'91477	9'89020	9'43670						
28	9'02009	0'20949	8'90729	9'88720	9'44118	58	9'02473	0'21722	8'91502	9'89030	9'43654						
29	9'02025	0'20975	8'90755	9'88730	9'44102	59	9'02488	0'21748	8'91528	9'89040	9'43639						
30	9'02040	0'21001	8'90781	9'88741	9'44087	60	9'02504	0'21774	8'91554	9'89050	9'43623						
	a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'

Declination 50°.

Diff. 0'00026.

1	0	11	5	21	9
2	1	12	5	22	10
3	1	13	6	23	10
4	2	14	6	24	10
5	2	15	6	25	11
6	3	16	7	26	11
7	3	17	7	27	12
8	3	18	8	28	12
9	4	19	8	29	13
10	4	20	9	30	13

N.P.D Tables for Star Constants, 1880.

39° to 38°						sc=0.4875. c'=1.30220. d'=0.00000 141° to 142°					
	a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'
0	9.02504	0.21774	8.91554	9.89050	9.43623	30	9.02976	0.22550	8.92330	9.89354	9.43151
1	9.02519	0.21800	8.91580	9.89060	9.43608	31	9.02992	0.22576	8.92356	9.89364	9.43135
2	9.02535	0.21826	8.91606	9.89071	9.43592	32	9.03008	0.22602	8.92382	9.89375	9.43119
3	9.02551	0.21852	8.91632	9.89081	9.43576	33	9.03024	0.22628	8.92408	9.89385	9.43103
4	9.02566	0.21877	8.91657	9.89091	9.43561	34	9.03040	0.22654	8.92434	9.89395	9.43087
5	9.02582	0.21903	8.91683	9.89101	9.43545	35	9.03056	0.22680	8.92460	9.89405	9.43071
6	9.02598	0.21929	8.91709	9.89112	9.43529	36	9.03072	0.22706	8.92486	9.89415	9.43055
7	9.02613	0.21955	8.91735	9.89122	9.43514	37	9.03087	0.22732	8.92512	9.89425	9.43040
8	9.02629	0.21981	8.91761	9.89132	9.43498	38	9.03103	0.22758	8.92538	9.89435	9.43024
9	9.02645	0.22007	8.91787	9.89142	9.43482	39	9.03119	0.22784	8.92564	9.89445	9.43008
10	9.02660	0.22033	8.91813	9.89152	9.43467	40	9.03135	0.22810	8.92590	9.89455	9.42992
11	9.02676	0.22058	8.91838	9.89162	9.43451	41	9.03151	0.22836	8.92616	9.89465	9.42976
12	9.02692	0.22084	8.91864	9.89173	9.43435	42	9.03167	0.22862	8.92642	9.89475	9.42960
13	9.02707	0.22110	8.91890	9.89183	9.43420	43	9.03183	0.22888	8.92668	9.89485	9.42944
14	9.02723	0.22136	8.91916	9.89193	9.43404	44	9.03199	0.22914	8.92694	9.89495	9.42928
15	9.02739	0.22162	8.91942	9.89203	9.43388	45	9.03215	0.22940	8.92720	9.89504	9.42912
16	9.02755	0.22188	8.91968	9.89213	9.43372	46	9.03231	0.22966	8.92746	9.89514	9.42896
17	9.02770	0.22214	8.91994	9.89223	9.43357	47	9.03247	0.22992	8.92772	9.89524	9.42880
18	9.02786	0.22240	8.92020	9.89233	9.43341	48	9.03263	0.23018	8.92798	9.89534	9.42864
19	9.02802	0.22265	8.92045	9.89244	9.43325	49	9.03280	0.23044	8.92824	9.89544	9.42847
20	9.02818	0.22291	8.92071	9.89254	9.43309	50	9.03296	0.23070	8.92850	9.89554	9.42831
21	9.02833	0.22317	8.92097	9.89264	9.43294	51	9.03312	0.23096	8.92876	9.89564	9.42815
22	9.02849	0.22343	8.92123	9.89274	9.43278	52	9.03328	0.23122	8.92902	9.89574	9.42799
23	9.02865	0.22369	8.92149	9.89284	9.43262	53	9.03344	0.23148	8.92928	9.89584	9.42783
24	9.02881	0.22395	8.92175	9.89294	9.43246	54	9.03360	0.23174	8.92954	9.89594	9.42767
25	9.02897	0.22421	8.92201	9.89304	9.43230	55	9.03376	0.23200	8.92980	9.89604	9.42751
26	9.02913	0.22447	8.92227	9.89314	9.43214	56	9.03392	0.23226	8.93006	9.89614	9.42735
27	9.02928	0.22473	8.92253	9.89324	9.43199	57	9.03408	0.23252	8.93032	9.89624	9.42719
28	9.02944	0.22499	8.92279	9.89334	9.43183	58	9.03424	0.23278	8.93058	9.89633	9.42703
29	9.02960	0.22525	8.92305	9.89344	9.43167	59	9.03441	0.23304	8.93084	9.89643	9.42686
30	9.02976	0.22550	8.92330	9.89354	9.43151	60	9.03457	0.23330	8.93110	9.89653	9.42670
	a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'

Declination 51°.

Diff. 0.00026.

1	0	11	5	21	9
2	1	12	5	22	10
3	2	13	6	23	10
4	2	14	6	24	10
5	2	15	7	25	11
6	3	16	7	26	11
7	3	17	7	27	12
8	3	18	8	28	12
9	4	19	8	29	13
10	4	20	9	30	13

N.P.D. Tables for Star Constants, 1880.

38° to 37°						142° to 143°					
sc=0.4875.						d'=0.00000.					
c1=1.30220.											
	a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'
0	9.03457	0.23330	8.93110	9.89653	9.42670	30	9.03946	0.24113	8.93893	9.89947	9.42181
1	9.03473	0.23356	8.93136	9.89663	9.42654	31	9.03963	0.24139	8.93919	9.89956	9.42164
2	9.03489	0.23382	8.93162	9.89673	9.42638	32	9.03979	0.24165	8.93945	9.89966	9.42148
3	9.03505	0.23408	8.93188	9.89683	9.42622	33	9.03996	0.24191	8.93971	9.89976	9.42131
4	9.03522	0.23434	8.93214	9.89693	9.42605	34	9.04012	0.24218	8.93998	9.89985	9.42115
5	9.03538	0.23460	8.93240	9.89702	9.42589	35	9.04029	0.24244	8.94024	9.89995	9.42098
6	9.03554	0.23486	8.93266	9.89712	9.42573	36	9.04045	0.24270	8.94050	9.90005	9.42082
7	9.03570	0.23512	8.93292	9.89722	9.42557	37	9.04062	0.24296	8.94076	9.90014	9.42065
8	9.03586	0.23538	8.93318	9.89732	9.42541	38	9.04078	0.24322	8.94102	9.90024	9.42049
9	9.03603	0.23565	8.93345	9.89742	9.42524	39	9.04095	0.24349	8.94129	9.90034	9.42032
10	9.03619	0.23591	8.93371	9.89752	9.42508	40	9.04111	0.24375	8.94155	9.90043	9.42016
11	9.03635	0.23617	8.93397	9.89761	9.42492	41	9.04128	0.24401	8.94181	9.90053	9.41999
12	9.03652	0.23643	8.93423	9.89771	9.42475	42	9.04145	0.24427	8.94207	9.90063	9.41982
13	9.03668	0.23669	8.93449	9.89781	9.42459	43	9.04161	0.24453	8.94233	9.90072	9.41966
14	9.03684	0.23695	8.93475	9.89791	9.42443	44	9.04178	0.24480	8.94260	9.90082	9.41949
15	9.03700	0.23721	8.93501	9.89801	9.42427	45	9.04194	0.24506	8.94286	9.90091	9.41933
16	9.03717	0.23747	8.93527	9.89810	9.42410	46	9.04211	0.24532	8.94312	9.90101	9.41916
17	9.03733	0.23773	8.93553	9.89820	9.42394	47	9.04228	0.24558	8.94338	9.90111	9.41899
18	9.03749	0.23799	8.93579	9.89830	9.42378	48	9.04244	0.24584	8.94364	9.90120	9.41883
19	9.03766	0.23825	8.93605	9.89840	9.42361	49	9.04261	0.24611	8.94391	9.90130	9.41866
20	9.03782	0.23852	8.93632	9.89849	9.42345	50	9.04278	0.24637	8.94417	9.90139	9.41849
21	9.03799	0.23878	8.93658	9.89859	9.42328	51	9.04294	0.24663	8.94443	9.90149	9.41833
22	9.03815	0.23904	8.93684	9.89869	9.42312	52	9.04311	0.24689	8.94469	9.90159	9.41816
23	9.03831	0.23930	8.93710	9.89879	9.42296	53	9.04328	0.24716	8.94496	9.90168	9.41799
24	9.03848	0.23956	8.93736	9.89888	9.42279	54	9.04344	0.24742	8.94522	9.90178	9.41783
25	9.03864	0.23982	8.93762	9.89898	9.42263	55	9.04361	0.24768	8.94548	9.90187	9.41766
26	9.03881	0.24008	8.93788	9.89908	9.42246	56	9.04378	0.24794	8.94574	9.90197	9.41749
27	9.03897	0.24034	8.93814	9.89918	9.42230	57	9.04394	0.24821	8.94601	9.90206	9.41733
28	9.03913	0.24061	8.93841	9.89927	9.42214	58	9.04411	0.24847	8.94627	9.90216	9.41716
29	9.03930	0.24087	8.93867	9.89937	9.42197	59	9.04428	0.24873	8.94653	9.90225	9.41699
30	9.03946	0.24113	8.93893	9.89947	9.42181	60	9.04445	0.24900	8.94680	9.90235	9.41682
	a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'

Declination 52°.

Diff. 0.00026.

1	0	11	5	21	9
2	1	12	5	22	10
3	1	13	6	23	10
4	2	14	6	24	10
5	2	15	7	25	11
6	3	16	7	26	11
7	3	17	7	27	12
8	3	18	8	28	12
9	4	19	8	29	13
10	4	20	9	30	13

N.P.D. Tables for Star Constants, 1880.

37° to 36° $\kappa=0.4875.$ $c'=1.30220.$ $d'=0.00000.$ 143° to 144°											
	a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'
0	9.04445	0.24900	8.94680	9.90235	9.41682	30	9.04952	0.25690	8.95470	9.90518	9.41175
1	9.04461	0.24926	8.94706	9.90244	9.41666	31	9.04969	0.25717	8.95497	9.90527	9.41158
2	9.04478	0.24952	8.94732	9.90254	9.41649	32	9.04986	0.25743	8.95523	9.90537	9.41141
3	9.04495	0.24978	8.94758	9.90263	9.41632	33	9.05004	0.25769	8.95549	9.90546	9.41123
4	9.04512	0.25005	8.94785	9.90273	9.41615	34	9.05021	0.25796	8.95576	9.90555	9.41106
5	9.04529	0.25031	8.94811	9.90282	9.41598	35	9.05038	0.25822	8.95602	9.90565	9.41089
6	9.04545	0.25057	8.94837	9.90292	9.41582	36	9.05055	0.25849	8.95629	9.90574	9.41072
7	9.04562	0.25084	8.94864	9.90301	9.41565	37	9.05072	0.25875	8.95655	9.90583	9.41055
8	9.04579	0.25110	8.94890	9.90311	9.41548	38	9.05089	0.25902	8.95682	9.90592	9.41038
9	9.04596	0.25136	8.94916	9.90320	9.41531	39	9.05106	0.25928	8.95708	9.90602	9.41021
10	9.04613	0.25163	8.94943	9.90330	9.41514	40	9.05123	0.25955	8.95735	9.90611	9.41004
11	9.04630	0.25189	8.94969	9.90339	9.41497	41	9.05141	0.25981	8.95761	9.90620	9.40986
12	9.04647	0.25215	8.94995	9.90349	9.41480	42	9.05158	0.26008	8.95788	9.90630	9.40969
13	9.04663	0.25242	8.95022	9.90358	9.41464	43	9.05175	0.26034	8.95814	9.90639	9.40952
14	9.04680	0.25268	8.95048	9.90368	9.41447	44	9.05192	0.26060	8.95840	9.90648	9.40935
15	9.04697	0.25294	8.95074	9.90377	9.41430	45	9.05210	0.26087	8.95867	9.90657	9.40917
16	9.04714	0.25321	8.95101	9.90386	9.41413	46	9.05227	0.26113	8.95893	9.90667	9.40900
17	9.04731	0.25347	8.95127	9.90396	9.41396	47	9.05244	0.26140	8.95920	9.90676	9.40883
18	9.04748	0.25373	8.95153	9.90405	9.41379	48	9.05261	0.26166	8.95946	9.90685	9.40866
19	9.04765	0.25400	8.95180	9.90415	9.41362	49	9.05279	0.26193	8.95973	9.90694	9.40848
20	9.04782	0.25426	8.95206	9.90424	9.41345	50	9.05296	0.26219	8.95999	9.90704	9.40831
21	9.04799	0.25453	8.95233	9.90434	9.41328	51	9.05313	0.26246	8.96026	9.90713	9.40814
22	9.04816	0.25479	8.95259	9.90443	9.41311	52	9.05330	0.26273	8.96053	9.90722	9.40797
23	9.04833	0.25505	8.95285	9.90452	9.41294	53	9.05348	0.26299	8.96079	9.90731	9.40779
24	9.04850	0.25532	8.95312	9.90462	9.41277	54	9.05365	0.26326	8.96106	9.90741	9.40762
25	9.04867	0.25558	8.95338	9.90471	9.41260	55	9.05382	0.26352	8.96132	9.90750	9.40745
26	9.04884	0.25584	8.95364	9.90480	9.41243	56	9.05400	0.26379	8.96159	9.90759	9.40727
27	9.04901	0.25611	8.95391	9.90490	9.41226	57	9.05417	0.26405	8.96185	9.90768	9.40710
28	9.04918	0.25637	8.95417	9.90499	9.41209	58	9.05434	0.26432	8.96212	9.90777	9.40693
29	9.04935	0.25664	8.95444	9.90509	9.41192	59	9.05452	0.26458	8.96238	9.90787	9.40675
30	9.04952	0.25690	8.95470	9.90518	9.41175	60	9.05469	0.26485	8.96265	9.90796	9.40658
	a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'

Declination 53°.

Diff. 0.00026.

"	"	"	"	"	"
1	0	11	5	21	9
2	1	12	5	22	10
3	1	13	6	23	10
4	2	14	6	24	10
5	2	15	7	25	11
6	3	16	7	26	11
7	3	17	7	27	12
8	3	18	8	28	12
9	4	19	8	29	13
10	4	20	9	30	13

N.P.D. Tables for Star Constants, 1880.

36° to 35°		sc=0°48'75.		c'=1°30'220.		d'=0°00'000.		144° to 145°			
	a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'
0	9°05469	0°26485	8°96265	9°90796	9°40658	30	9°05996	0°27284	8°97064	9°91069	9°40131
1	9°05487	0°26511	8°96291	9°90805	9°40640	31	9°06013	0°27311	8°97091	9°91078	9°40114
2	9°05504	0°26538	8°96318	9°90814	9°40623	32	9°06031	0°27338	8°97118	9°91087	9°40098
3	9°05521	0°26565	8°96345	9°90823	9°40606	33	9°06049	0°27364	8°97144	9°91096	9°40078
4	9°05539	0°26591	8°96371	9°90832	9°40588	34	9°06067	0°27391	8°97171	9°91105	9°40060
5	9°05556	0°26618	8°96398	9°90842	9°40571	35	9°06084	0°27418	8°97198	9°91114	9°40043
6	9°05574	0°26644	8°96424	9°90851	9°40553	36	9°06102	0°27445	8°97225	9°91123	9°40025
7	9°05591	0°26671	8°96451	9°90860	9°40536	37	9°06120	0°27471	8°97251	9°91132	9°40007
8	9°05609	0°26698	8°96478	9°90869	9°40518	38	9°06138	0°27498	8°97278	9°91141	9°39989
9	9°05626	0°26724	8°96504	9°90878	9°40501	39	9°06155	0°27525	8°97305	9°91149	9°39972
10	9°05644	0°26751	8°96531	9°90887	9°40483	40	9°06173	0°27552	8°97332	9°91158	9°39954
11	9°05661	0°26777	8°96557	9°90896	9°40466	41	9°06191	0°27578	8°97358	9°91167	9°39936
12	9°05679	0°26804	8°96584	9°90906	9°40448	42	9°06209	0°27605	8°97385	9°91176	9°39918
13	9°05696	0°26831	8°96611	9°90915	9°40431	43	9°06227	0°27632	8°97412	9°91185	9°39900
14	9°05714	0°26857	8°96637	9°90924	9°40413	44	9°06245	0°27659	8°97439	9°91194	9°39882
15	9°05731	0°26884	8°96664	9°90933	9°40396	45	9°06262	0°27686	8°97466	9°91203	9°39865
16	9°05749	0°26911	8°96691	9°90942	9°40378	46	9°06280	0°27712	8°97492	9°91212	9°39847
17	9°05766	0°26937	8°96717	9°90951	9°40361	47	9°06298	0°27739	8°97519	9°91221	9°39829
18	9°05784	0°26964	8°96744	9°90960	9°40343	48	9°06316	0°27766	8°97546	9°91230	9°39811
19	9°05801	0°26991	8°96771	9°90969	9°40326	49	9°06334	0°27793	8°97573	9°91239	9°39793
20	9°05819	0°27017	8°96797	9°90978	9°40308	50	9°06352	0°27820	8°97600	9°91248	9°39775
21	9°05837	0°27044	8°96824	9°90987	9°40290	51	9°06370	0°27847	8°97627	9°91257	9°39757
22	9°05854	0°27071	8°96851	9°90996	9°40273	52	9°06388	0°27873	8°97653	9°91266	9°39739
23	9°05872	0°27097	8°96877	9°91005	9°40255	53	9°06406	0°27900	8°97680	9°91274	9°39721
24	9°05890	0°27124	8°96904	9°91014	9°40237	54	9°06424	0°27927	8°97707	9°91283	9°39703
25	9°05907	0°27151	8°96931	9°91023	9°40220	55	9°06442	0°27954	8°97734	9°91292	9°39685
26	9°05925	0°27177	8°96957	9°91033	9°40202	56	9°06460	0°27981	8°97761	9°91301	9°39667
27	9°05943	0°27204	8°96984	9°91042	9°40184	57	9°06478	0°28008	8°97788	9°91310	9°39649
28	9°05960	0°27231	8°97011	9°91051	9°40167	58	9°06496	0°28035	8°97815	9°91319	9°39631
29	9°05978	0°27257	8°97037	9°91060	9°40149	59	9°06514	0°28061	8°97841	9°91328	9°39613
30	9°05996	0°27284	8°97064	9°91069	9°40131	60	9°06532	0°28088	8°97868	9°91336	9°39595
	a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'

Declination 54°.

Diff. 0.00027.

1	0	11	5	21	9
2	1	12	5	22	10
3	1	13	6	23	10
4	2	14	6	24	11
5	2	15	7	25	11
6	3	16	7	26	12
7	3	17	8	27	12
8	4	18	8	28	13
9	4	19	9	29	13
10	5	20	9	30	14

N.P.D. Tables for Star Constants, 1880.

35° to 34°						145° to 146°					
sc=0.4875.						c1=1.30220.					
d1=0.00000.											
	a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'
0	9.06532	0.28088	8.97868	9.91336	9.39595	30	9.07078	0.28898	8.98678	9.91599	9.39049
1	9.06550	0.28115	8.97895	9.91345	9.39577	31	9.07097	0.28925	8.98705	9.91608	9.39030
2	9.06568	0.28142	8.97922	9.91354	9.39559	32	9.07115	0.28952	8.98732	9.91617	9.39012
3	9.06586	0.28169	8.97949	9.91363	9.39541	33	9.07133	0.28979	8.98759	9.91625	9.38994
4	9.06604	0.28196	8.97976	9.91372	9.39523	34	9.07152	0.29006	8.98786	9.91634	9.38975
5	9.06622	0.28223	8.98003	9.91381	9.39505	35	9.07170	0.29033	8.98813	9.91643	9.38957
6	9.06640	0.28250	8.98030	9.91389	9.39487	36	9.07189	0.29060	8.98840	9.91651	9.38938
7	9.06658	0.28277	8.98057	9.91398	9.39469	37	9.07207	0.29087	8.98867	9.91660	9.38920
8	9.06677	0.28304	8.98084	9.91407	9.39450	38	9.07226	0.29114	8.98894	9.91669	9.38901
9	9.06695	0.28331	8.98111	9.91416	9.39432	39	9.07244	0.29141	8.98921	9.91677	9.38883
10	9.06713	0.28357	8.98137	9.91425	9.39414	40	9.07263	0.29169	8.98949	9.91686	9.38864
11	9.06731	0.28384	8.98164	9.91433	9.39396	41	9.07281	0.29196	8.98976	9.91695	9.38846
12	9.06749	0.28411	8.98191	9.91442	9.39378	42	9.07300	0.29223	8.99003	9.91703	9.38827
13	9.06767	0.28438	8.98218	9.91451	9.39360	43	9.07318	0.29250	8.99030	9.91712	9.38809
14	9.06786	0.28465	8.98245	9.91460	9.39341	44	9.07337	0.29277	8.99057	9.91720	9.38790
15	9.06804	0.28492	8.98272	9.91469	9.39323	45	9.07355	0.29304	8.99084	9.91729	9.38772
16	9.06822	0.28519	8.98299	9.91477	9.39305	46	9.07374	0.29331	8.99111	9.91738	9.38753
17	9.06840	0.28546	8.98326	9.91486	9.39287	47	9.07392	0.29359	8.99139	9.91746	9.38735
18	9.06858	0.28573	8.98353	9.91495	9.39269	48	9.07411	0.29386	8.99166	9.91755	9.38716
19	9.06877	0.28600	8.98380	9.91504	9.39250	49	9.07430	0.29413	8.99193	9.91763	9.38697
20	9.06895	0.28627	8.98407	9.91512	9.39232	50	9.07448	0.29440	8.99220	9.91772	9.38679
21	9.06913	0.28654	8.98434	9.91521	9.39214	51	9.07467	0.29467	8.99247	9.91781	9.38660
22	9.06932	0.28681	8.98461	9.91530	9.39195	52	9.07485	0.29494	8.99274	9.91789	9.38642
23	9.06950	0.28708	8.98488	9.91538	9.39177	53	9.07504	0.29522	8.99302	9.91798	9.38623
24	9.06968	0.28735	8.98515	9.91547	9.39159	54	9.07523	0.29549	8.99329	9.91806	9.38604
25	9.06986	0.28762	8.98542	9.91556	9.39141	55	9.07541	0.29576	8.99356	9.91815	9.38586
26	9.07005	0.28789	8.98569	9.91565	9.39122	56	9.07560	0.29603	8.99383	9.91823	9.38567
27	9.07023	0.28816	8.98596	9.91573	9.39104	57	9.07579	0.29631	8.99411	9.91832	9.38548
28	9.07041	0.28843	8.98623	9.91582	9.39086	58	9.07597	0.29658	8.99438	9.91840	9.38530
29	9.07060	0.28871	8.98651	9.91591	9.39067	59	9.07616	0.29685	8.99465	9.91849	9.38511
30	9.07078	0.28898	8.98678	9.91599	9.39049	60	9.07635	0.29712	8.99492	9.91857	9.38492
	a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'

Declination 55°.

Diff. 0.00027.

1	0	11	5	21	9
2	1	12	5	22	10
3	1	13	6	23	10
4	2	14	6	24	11
5	2	15	7	25	11
6	3	16	7	26	12
7	3	17	8	27	12
8	4	18	8	28	13
9	4	19	9	29	13
10	5	20	9	30	14

N.P.D. Tables for Star Constants, 1880.

34° to 38°						146° to 147°					
sc=0.4875.						d'=0.00000.					
c'=1.30220.											
	a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'
0	9.07635	0.29712	8.99492	9.91857	9.38492	30	9.08202	0.30533	9.00313	9.92111	9.37925
1	9.07654	0.29740	8.99520	9.91866	9.38473	31	9.08221	0.30560	9.00340	9.92119	9.37906
2	9.07672	0.29767	8.99547	9.91874	9.38455	32	9.08240	0.30588	9.00368	9.92127	9.37887
3	9.07691	0.29794	8.99574	9.91883	9.38436	33	9.08259	0.30615	9.00395	9.92136	9.37868
4	9.07710	0.29821	8.99601	9.91891	9.38417	34	9.08278	0.30643	9.00423	9.92144	9.37849
5	9.07729	0.29849	8.99629	9.91900	9.38398	35	9.08298	0.30670	9.00450	9.92152	9.37829
6	9.07747	0.29876	8.99656	9.91908	9.38380	36	9.08317	0.30698	9.00478	9.92161	9.37810
7	9.07766	0.29903	8.99683	9.91917	9.38361	37	9.08336	0.30725	9.00505	9.92169	9.37791
8	9.07785	0.29930	8.99710	9.91925	9.38342	38	9.08355	0.30753	9.00533	9.92177	9.37772
9	9.07804	0.29958	8.99738	9.91934	9.38323	39	9.08374	0.30780	9.00560	9.92186	9.37753
10	9.07823	0.29985	8.99765	9.91942	9.38304	40	9.08394	0.30808	9.00588	9.92194	9.37733
11	9.07842	0.30012	8.99792	9.91951	9.38285	41	9.08413	0.30835	9.00615	9.92202	9.37714
12	9.07860	0.30040	8.99820	9.91959	9.38267	42	9.08432	0.30863	9.00643	9.92211	9.37695
13	9.07879	0.30067	8.99847	9.91968	9.38248	43	9.08451	0.30890	9.00670	9.92219	9.37676
14	9.07898	0.30094	8.99874	9.91976	9.38229	44	9.08470	0.30918	9.00698	9.92227	9.37657
15	9.07917	0.30122	8.99902	9.91985	9.38210	45	9.08490	0.30945	9.00725	9.92235	9.37637
16	9.07936	0.30149	8.99929	9.91993	9.38191	46	9.08509	0.30973	9.00753	9.92244	9.37618
17	9.07955	0.30176	8.99956	9.92002	9.38172	47	9.08528	0.31000	9.00780	9.92252	9.37599
18	9.07974	0.30204	8.99984	9.92010	9.38153	48	9.08548	0.31028	9.00808	9.92260	9.37579
19	9.07993	0.30231	9.00011	9.92018	9.38134	49	9.08567	0.31055	9.00835	9.92269	9.37560
20	9.08012	0.30259	9.00039	9.92027	9.38115	50	9.08586	0.31083	9.00863	9.92277	9.37541
21	9.08031	0.30286	9.00066	9.92035	9.38096	51	9.08606	0.31111	9.00891	9.92285	9.37521
22	9.08050	0.30313	9.00093	9.92044	9.38077	52	9.08625	0.31138	9.00918	9.92293	9.37502
23	9.08069	0.30341	9.00121	9.92052	9.38058	53	9.08644	0.31166	9.00946	9.92302	9.37483
24	9.08088	0.30368	9.00148	9.92060	9.38039	54	9.08664	0.31193	9.00973	9.92310	9.37463
25	9.08107	0.30396	9.00176	9.92069	9.38020	55	9.08683	0.31221	9.01001	9.92318	9.37444
26	9.08126	0.30423	9.00203	9.92077	9.38001	56	9.08702	0.31249	9.01029	9.92326	9.37425
27	9.08145	0.30450	9.00230	9.92086	9.37982	57	9.08722	0.31276	9.01056	9.92335	9.37405
28	9.08164	0.30478	9.00258	9.92094	9.37963	58	9.08741	0.31304	9.01084	9.92343	9.37386
29	9.08183	0.30505	9.00285	9.92102	9.37944	59	9.08761	0.31332	9.01112	9.92351	9.37366
30	9.08202	0.30533	9.00313	9.92111	9.37925	60	9.08780	0.31359	9.01139	9.92359	9.37347
	a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'

Declination 56°.

Diff. 0.00028.

"	"	"
1	0	11
2	1	12
3	1	13
4	2	14
5	2	15
6	3	16
7	3	17
8	4	18
9	4	19
10	5	20
		21
		22
		23
		24
		25
		26
		27
		28
		29
		30

N.P.D. Tables for Star Constants, 1880.

33° to 32°						sc=0.4875.						c'=1.30220.						d'=0.00000.						147° to 148°					
		a=b	c	d	a'=b'	sa'			a=b	c	d	a'=b'	sa'			a=b	c	d	a'=b'	sa'			a=b	c	d	a'=b'	sa'		
0		9.08780	0.31359	9.01139	9.92359	9.37347	30		9.09369	0.32192	9.01972	9.92603	9.36758	30		9.09369	0.32192	9.01972	9.92603	9.36758	30		9.09369	0.32192	9.01972	9.92603	9.36758		
1		9.08800	0.31387	9.01167	9.92367	9.37327	31		9.09389	0.32220	9.02000	9.92611	9.36738	31		9.09389	0.32220	9.02000	9.92611	9.36738	31		9.09389	0.32220	9.02000	9.92611	9.36738		
2		9.08819	0.31415	9.01195	9.92376	9.37308	32		9.09409	0.32248	9.02028	9.92619	9.36718	32		9.09409	0.32248	9.02028	9.92619	9.36718	32		9.09409	0.32248	9.02028	9.92619	9.36718		
3		9.08839	0.31442	9.01222	9.92384	9.37288	33		9.09429	0.32276	9.02056	9.92627	9.36698	33		9.09429	0.32276	9.02056	9.92627	9.36698	33		9.09429	0.32276	9.02056	9.92627	9.36698		
4		9.08858	0.31470	9.01250	9.92392	9.37269	34		9.09449	0.32304	9.02084	9.92635	9.36678	34		9.09449	0.32304	9.02084	9.92635	9.36678	34		9.09449	0.32304	9.02084	9.92635	9.36678		
5		9.08878	0.31498	9.01278	9.92400	9.37249	35		9.09469	0.32332	9.02112	9.92643	9.36658	35		9.09469	0.32332	9.02112	9.92643	9.36658	35		9.09469	0.32332	9.02112	9.92643	9.36658		
6		9.08897	0.31525	9.01305	9.92408	9.37230	36		9.09489	0.32360	9.02140	9.92651	9.36638	36		9.09489	0.32360	9.02140	9.92651	9.36638	36		9.09489	0.32360	9.02140	9.92651	9.36638		
7		9.08917	0.31553	9.01333	9.92416	9.37210	37		9.09508	0.32388	9.02168	9.92659	9.36619	37		9.09508	0.32388	9.02168	9.92659	9.36619	37		9.09508	0.32388	9.02168	9.92659	9.36619		
8		9.08936	0.31581	9.01361	9.92425	9.37191	38		9.09528	0.32416	9.02196	9.92667	9.36599	38		9.09528	0.32416	9.02196	9.92667	9.36599	38		9.09528	0.32416	9.02196	9.92667	9.36599		
9		9.08956	0.31608	9.01388	9.92433	9.37171	39		9.09548	0.32443	9.02223	9.92675	9.36579	39		9.09548	0.32443	9.02223	9.92675	9.36579	39		9.09548	0.32443	9.02223	9.92675	9.36579		
10		9.08975	0.31636	9.01416	9.92441	9.37152	40		9.09568	0.32471	9.02251	9.92683	9.36559	40		9.09568	0.32471	9.02251	9.92683	9.36559	40		9.09568	0.32471	9.02251	9.92683	9.36559		
11		9.08995	0.31664	9.01444	9.92449	9.37132	41		9.09588	0.32499	9.02279	9.92691	9.36539	41		9.09588	0.32499	9.02279	9.92691	9.36539	41		9.09588	0.32499	9.02279	9.92691	9.36539		
12		9.09014	0.31692	9.01472	9.92457	9.37113	42		9.09608	0.32527	9.02307	9.92699	9.36519	42		9.09608	0.32527	9.02307	9.92699	9.36519	42		9.09608	0.32527	9.02307	9.92699	9.36519		
13		9.09034	0.31719	9.01499	9.92465	9.37093	43		9.09628	0.32555	9.02335	9.92707	9.36499	43		9.09628	0.32555	9.02335	9.92707	9.36499	43		9.09628	0.32555	9.02335	9.92707	9.36499		
14		9.09054	0.31747	9.01527	9.92473	9.37073	44		9.09648	0.32583	9.02363	9.92715	9.36479	44		9.09648	0.32583	9.02363	9.92715	9.36479	44		9.09648	0.32583	9.02363	9.92715	9.36479		
15		9.09073	0.31775	9.01555	9.92482	9.37054	45		9.09668	0.32611	9.02391	9.92723	9.36459	45		9.09668	0.32611	9.02391	9.92723	9.36459	45		9.09668	0.32611	9.02391	9.92723	9.36459		
16		9.09093	0.31803	9.01583	9.92490	9.37034	46		9.09688	0.32639	9.02419	9.92731	9.36439	46		9.09688	0.32639	9.02419	9.92731	9.36439	46		9.09688	0.32639	9.02419	9.92731	9.36439		
17		9.09113	0.31830	9.01610	9.92498	9.37014	47		9.09708	0.32667	9.02447	9.92739	9.36419	47		9.09708	0.32667	9.02447	9.92739	9.36419	47		9.09708	0.32667	9.02447	9.92739	9.36419		
18		9.09132	0.31858	9.01638	9.92506	9.36995	48		9.09728	0.32695	9.02475	9.92747	9.36399	48		9.09728	0.32695	9.02475	9.92747	9.36399	48		9.09728	0.32695	9.02475	9.92747	9.36399		
19		9.09152	0.31886	9.01666	9.92514	9.36975	49		9.09748	0.32723	9.02503	9.92755	9.36379	49		9.09748	0.32723	9.02503	9.92755	9.36379	49		9.09748	0.32723	9.02503	9.92755	9.36379		
20		9.09172	0.31914	9.01694	9.92522	9.36955	50		9.09769	0.32751	9.02531	9.92763	9.36358	50		9.09769	0.32751	9.02531	9.92763	9.36358	50		9.09769	0.32751	9.02531	9.92763	9.36358		
21		9.09191	0.31942	9.01722	9.92530	9.36936	51		9.09789	0.32779	9.02559	9.92771	9.36338	51		9.09789	0.32779	9.02559	9.92771	9.36338	51		9.09789	0.32779	9.02559	9.92771	9.36338		
22		9.09211	0.31969	9.01749	9.92538	9.36916	52		9.09809	0.32807	9.02587	9.92779	9.36318	52		9.09809	0.32807	9.02587	9.92779	9.36318	52		9.09809	0.32807	9.02587	9.92779	9.36318		
23		9.09231	0.31997	9.01777	9.92546	9.36896	53		9.09829	0.32835	9.02615	9.92787	9.36298	53		9.09829	0.32835	9.02615	9.92787	9.36298	53		9.09829	0.32835	9.02615	9.92787	9.36298		
24		9.09251	0.32025	9.01805	9.92555	9.36876	54		9.09849	0.32864	9.02644	9.92795	9.36278	54		9.09849	0.32864	9.02644	9.92795	9.36278	54		9.09849	0.32864	9.02644	9.92795	9.36278		
25		9.09270	0.32053	9.01833	9.92563	9.36857	55		9.09869	0.32892	9.02672	9.92803	9.36258	55		9.09869	0.32892	9.02672	9.92803	9.36258	55		9.09869	0.32892	9.02672	9.92803	9.36258		
26		9.09290	0.32081	9.01861	9.92571	9.36837	56		9.09889	0.32920	9.02700	9.92810	9.36238	56		9.09889	0.32920	9.02700	9.92810	9.36238	56		9.09889	0.32920	9.02700	9.92810	9.36238		
27		9.09310	0.32109	9.01889	9.92579	9.36817	57		9.09909	0.32948	9.02728	9.92818	9.36218	57		9.09909	0.32948	9.02728	9.92818	9.36218	57		9.09909	0.32948	9.02728	9.92818	9.36218		
28		9.09330	0.32137	9.01917	9.92587	9.36797	58		9.09930	0.32976	9.02756	9.92826	9.36197	58		9.09930	0.32976	9.02756	9.92826	9.36197	58		9.09930	0.32976	9.02756	9.92826	9.36197		
29		9.09350	0.32164	9.01944	9.92595	9.36777	59		9.09950	0.33004	9.02784	9.92834	9.36177	59		9.09950	0.33004	9.02784	9.92834	9.36177	59		9.09950	0.33004	9.02784	9.92834	9.36177		
30		9.09369	0.32192	9.01972	9.92603	9.36758	60		9.09970	0.33032	9.02812	9.92842	9.36157	60		9.09970	0.33032	9.02812	9.92842	9.36157	60		9.09970	0.33032	9.02812	9.92842	9.36157		
		a=b	c	d	a'=b'	sa'			a=b	c	d	a'=b'	sa'			a=b	c	d	a'=b'	sa'			a=b	c	d	a'=b'	sa'		

Declination 57°.

Diff. 0.00028.

1	0	11	5	21	10
2	1	12	6	22	10
3	1	13	6	23	11
4	2	14	7	24	11
5	2	15	7	25	12
6	3	16	7	26	12
7	3	17	8	27	13
8	4	18	8	28	13
9	4	19	9	29	14
10	5	20	9	30	14

N.P.D. Tables for Star Constants, 1880.

32° to 31°						sc=0°4875. c'=0°30220. d'=0°00000. 148° to 149°					
	a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'
0	9°09970	0°33032	9°02812	9°92842	9°36157	30	9°10582	0°33879	9°03659	9°93077	9°35545
1	9°09990	0°33060	9°02840	9°92850	9°36137	31	9°10603	0°33907	9°03687	9°93084	9°35524
2	9°10010	0°33088	9°02868	9°92858	9°36117	32	9°10624	0°33936	9°03716	9°93092	9°35503
3	9°10031	0°33116	9°02896	9°92866	9°36096	33	9°10644	0°33964	9°03744	9°93100	9°35483
4	9°10051	0°33145	9°02925	9°92874	9°36076	34	9°10665	0°33993	9°03773	9°93108	9°35462
5	9°10071	0°33173	9°02953	9°92881	9°36056	35	9°10686	0°34021	9°03801	9°93115	9°35441
6	9°10092	0°33201	9°02981	9°92889	9°36035	36	9°10706	0°34049	9°03829	9°93123	9°35421
7	9°10112	0°33229	9°03009	9°92897	9°36015	37	9°10727	0°34078	9°03858	9°93131	9°35400
8	9°10132	0°33257	9°03037	9°92905	9°35995	38	9°10748	0°34106	9°03886	9°93138	9°35379
9	9°10153	0°33285	9°03065	9°92913	9°35974	39	9°10769	0°34135	9°03915	9°93146	9°35358
10	9°10173	0°33314	9°03094	9°92921	9°35954	40	9°10789	0°34163	9°03943	9°93154	9°35338
11	9°10193	0°33342	9°03122	9°92929	9°35934	41	9°10810	0°34192	9°03972	9°93161	9°35317
12	9°10214	0°33370	9°03150	9°92936	9°35913	42	9°10831	0°34220	9°04000	9°93169	9°35296
13	9°10234	0°33398	9°03178	9°92944	9°35893	43	9°10852	0°34248	9°04028	9°93177	9°35275
14	9°10254	0°33426	9°03206	9°92952	9°35873	44	9°10872	0°34277	9°04057	9°93184	9°35255
15	9°10275	0°33455	9°03235	9°92960	9°35852	45	9°10893	0°34305	9°04085	9°93192	9°35234
16	9°10295	0°33483	9°03263	9°92968	9°35832	46	9°10914	0°34334	9°04114	9°93200	9°35213
17	9°10316	0°33511	9°03291	9°92976	9°35811	47	9°10935	0°34362	9°04142	9°93207	9°35192
18	9°10336	0°33539	9°03319	9°92983	9°35791	48	9°10956	0°34391	9°04171	9°93215	9°35171
19	9°10357	0°33568	9°03348	9°92991	9°35770	49	9°10977	0°34419	9°04199	9°93223	9°35150
20	9°10377	0°33596	9°03376	9°92999	9°35750	50	9°10998	0°34448	9°04228	9°93230	9°35129
21	9°10397	0°33624	9°03404	9°93007	9°35730	51	9°11018	0°34476	9°04256	9°93238	9°35109
22	9°10418	0°33652	9°03432	9°93014	9°35709	52	9°11039	0°34505	9°04285	9°93246	9°35088
23	9°10439	0°33681	9°03461	9°93022	9°35688	53	9°11060	0°34534	9°04314	9°93253	9°35067
24	9°10459	0°33709	9°03489	9°93030	9°35668	54	9°11081	0°34562	9°04342	9°93261	9°35046
25	9°10480	0°33737	9°03517	9°93038	9°35647	55	9°11102	0°34591	9°04371	9°93269	9°35025
26	9°10500	0°33766	9°03546	9°93046	9°35627	56	9°11123	0°34619	9°04399	9°93276	9°35004
27	9°10521	0°33794	9°03574	9°93053	9°35606	57	9°11144	0°34648	9°04428	9°93284	9°34983
28	9°10541	0°33822	9°03602	9°93061	9°35586	58	9°11165	0°34676	9°04456	9°93291	9°34962
29	9°10562	0°33851	9°03631	9°93069	9°35565	59	9°11186	0°34705	9°04485	9°93299	9°34941
30	9°10582	0°33879	9°03659	9°93077	9°35545	60	9°11207	0°34734	9°04514	9°93307	9°34920
	a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'

Declination 58°.

Diff. 0°00028.

"	"	"	"
1	0	11	5
2	1	12	6
3	1	13	6
4	2	14	7
5	2	15	7
6	3	16	7
7	3	17	8
8	4	18	8
9	4	19	9
10	5	20	9
		21	10
		22	10
		23	11
		24	11
		25	12
		26	12
		27	13
		28	13
		29	14
		30	14

N.P.D. Tables for Star Constants, 1880.

31° to 30°						149° to 150°					
κ=0'4875.						c¹=1'30220.					
d¹=0'00000.											
	a=b	c	d	a¹=b¹	sa¹		a=b	c	d	a¹=b¹	sa¹
0	9'11207	0'34734	9'04514	9'93307	9'34920	30	9'11844	0'35596	9'05376	9'93532	9'34283
1	9'11228	0'34762	9'04542	9'93314	9'34899	31	9'11866	0'35625	9'05405	9'93539	9'34261
2	9'11249	0'34791	9'04571	9'93322	9'34878	32	9'11887	0'35654	9'05434	9'93547	9'34240
3	9'11270	0'34820	9'04600	9'93329	9'34857	33	9'11909	0'35683	9'05463	9'93554	9'34218
4	9'11291	0'34848	9'04628	9'93337	9'34836	34	9'11930	0'35712	9'05492	9'93562	9'34197
5	9'11312	0'34877	9'04657	9'93344	9'34815	35	9'11952	0'35741	9'05521	9'93569	9'34175
6	9'11333	0'34905	9'04685	9'93352	9'34794	36	9'11973	0'35770	9'05550	9'93577	9'34154
7	9'11355	0'34934	9'04714	9'93360	9'34772	37	9'11995	0'35799	9'05579	9'93584	9'34132
8	9'11376	0'34963	9'04743	9'93367	9'34751	38	9'12016	0'35828	9'05608	9'93591	9'34111
9	9'11397	0'34992	9'04772	9'93375	9'34730	39	9'12038	0'35857	9'05637	9'93599	9'34089
10	9'11418	0'35020	9'04800	9'93382	9'34709	40	9'12059	0'35886	9'05666	9'93606	9'34068
11	9'11439	0'35049	9'04829	9'93390	9'34688	41	9'12081	0'35914	9'05694	9'93614	9'34046
12	9'11460	0'35078	9'04858	9'93397	9'34667	42	9'12103	0'35943	9'05723	9'93621	9'34024
13	9'11482	0'35106	9'04886	9'93405	9'34645	43	9'12124	0'35972	9'05752	9'93628	9'34003
14	9'11503	0'35135	9'04915	9'93412	9'34624	44	9'12146	0'36002	9'05782	9'93636	9'33981
15	9'11524	0'35164	9'04944	9'93420	9'34603	45	9'12167	0'36031	9'05811	9'93643	9'33960
16	9'11545	0'35193	9'04973	9'93427	9'34582	46	9'12189	0'36060	9'05840	9'93650	9'33938
17	9'11567	0'35221	9'05001	9'93435	9'34560	47	9'12211	0'36089	9'05869	9'93658	9'33916
18	9'11588	0'35250	9'05030	9'93442	9'34539	48	9'12232	0'36118	9'05898	9'93665	9'33895
19	9'11609	0'35279	9'05059	9'93450	9'34518	49	9'12254	0'36147	9'05927	9'93673	9'33873
20	9'11630	0'35308	9'05088	9'93457	9'34497	50	9'12276	0'36176	9'05956	9'93680	9'33851
21	9'11652	0'35337	9'05117	9'93465	9'34475	51	9'12298	0'36205	9'05985	9'93687	9'33829
22	9'11673	0'35365	9'05145	9'93472	9'34454	52	9'12319	0'36234	9'06014	9'93695	9'33808
23	9'11694	0'35394	9'05174	9'93480	9'34433	53	9'12341	0'36263	9'06043	9'93702	9'33786
24	9'11716	0'35423	9'05203	9'93487	9'34411	54	9'12363	0'36292	9'06072	9'93709	9'33764
25	9'11737	0'35452	9'05232	9'93495	9'34390	55	9'12385	0'36321	9'06101	9'93717	9'33742
26	9'11758	0'35481	9'05261	9'93502	9'34369	56	9'12407	0'36350	9'06130	9'93724	9'33720
27	9'11780	0'35510	9'05290	9'93510	9'34347	57	9'12428	0'36380	9'06160	9'93731	9'33699
28	9'11801	0'35538	9'05318	9'93517	9'34326	58	9'12450	0'36409	9'06189	9'93738	9'33677
29	9'11823	0'35567	9'05347	9'93525	9'34304	59	9'12472	0'36438	9'06218	9'93746	9'33655
30	9'11844	0'35596	9'05376	9'93532	9'34283	60	9'12494	0'36467	9'06247	9'93753	9'33633
	a=b	c	d	a¹=b¹	sa¹		a=b	c	d	a¹=b¹	sa¹

Declination 59°.

Diff. 0'00029.

1	0	11	5	21	10
2	1	12	6	22	11
3	1	13	6	23	11
4	2	14	7	24	12
5	2	15	7	25	12
6	3	16	8	26	13
7	3	17	8	27	13
8	4	18	9	28	14
9	4	19	9	29	14
10	5	20	10	30	15

N.P.D Tables for Star Constants, 1880.

30° to 29°						sc=0.4875.		c'=1.30220.		d'=0.00000		150° to 151°	
	a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'		
0	9.12494	0.36467	9.06247	9.93753	9.33633	30	9.13157	0.37347	9.07127	9.93970	9.32970		
1	9.12516	0.36496	9.06276	9.93760	9.33611	31	9.13179	0.37376	9.07156	9.93977	9.32948		
2	9.12538	0.36525	9.06305	9.93768	9.33589	32	9.13202	0.37406	9.07186	9.93984	9.32925		
3	9.12560	0.36555	9.06335	9.93775	9.33567	33	9.13224	0.37435	9.07215	9.93991	9.32903		
4	9.12582	0.36584	9.06364	9.93782	9.33545	34	9.13247	0.37465	9.07245	9.93998	9.32880		
5	9.12604	0.36613	9.06393	9.93789	9.33523	35	9.13269	0.37494	9.07274	9.94005	9.32858		
6	9.12626	0.36642	9.06422	9.93797	9.33501	36	9.13291	0.37524	9.07304	9.94012	9.32836		
7	9.12648	0.36672	9.06452	9.93804	9.33479	37	9.13314	0.37553	9.07333	9.94020	9.32813		
8	9.12670	0.36701	9.06481	9.93811	9.33457	38	9.13336	0.37583	9.07363	9.94027	9.32791		
9	9.12692	0.36730	9.06510	9.93819	9.33435	39	9.13359	0.37613	9.07393	9.94034	9.32768		
10	9.12714	0.36759	9.06539	9.93826	9.33413	40	9.13381	0.37642	9.07422	9.94041	9.32746		
11	9.12736	0.36789	9.06569	9.93833	9.33391	41	9.13404	0.37672	9.07452	9.94048	9.32723		
12	9.12758	0.36818	9.06598	9.93840	9.33369	42	9.13426	0.37701	9.07481	9.94055	9.32701		
13	9.12780	0.36847	9.06627	9.93847	9.33347	43	9.13449	0.37731	9.07511	9.94062	9.32678		
14	9.12802	0.36876	9.06656	9.93855	9.33325	44	9.13471	0.37760	9.07540	9.94069	9.32656		
15	9.12824	0.36906	9.06686	9.93862	9.33303	45	9.13494	0.37790	9.07570	9.94076	9.32633		
16	9.12846	0.36935	9.06715	9.93869	9.33281	46	9.13516	0.37820	9.07600	9.94083	9.32611		
17	9.12868	0.36964	9.06744	9.93876	9.33259	47	9.13539	0.37849	9.07629	9.94090	9.32588		
18	9.12890	0.36994	9.06774	9.93884	9.33237	48	9.13562	0.37879	9.07659	9.94098	9.32565		
19	9.12912	0.37023	9.06803	9.93891	9.33215	49	9.13584	0.37909	9.07689	9.94105	9.32543		
20	9.12935	0.37053	9.06833	9.93898	9.33192	50	9.13607	0.37938	9.07718	9.94112	9.32520		
21	9.12957	0.37082	9.06862	9.93905	9.33170	51	9.13629	0.37968	9.07748	9.94119	9.32498		
22	9.12979	0.37111	9.06891	9.93912	9.33148	52	9.13652	0.37998	9.07778	9.94126	9.32475		
23	9.13001	0.37141	9.06921	9.93920	9.33126	53	9.13675	0.38028	9.07808	9.94133	9.32452		
24	9.13023	0.37170	9.06950	9.93927	9.33104	54	9.13697	0.38057	9.07837	9.94140	9.32430		
25	9.13046	0.37200	9.06980	9.93934	9.33081	55	9.13720	0.38087	9.07867	9.94147	9.32407		
26	9.13068	0.37229	9.07009	9.93941	9.33059	56	9.13743	0.38117	9.07897	9.94154	9.32384		
27	9.13090	0.37258	9.07038	9.93948	9.33037	57	9.13766	0.38146	9.07926	9.94161	9.32361		
28	9.13112	0.37288	9.07068	9.93955	9.33015	58	9.13788	0.38176	9.07956	9.94168	9.32339		
29	9.13135	0.37317	9.07097	9.93963	9.32992	59	9.13811	0.38206	9.07986	9.94175	9.32316		
30	9.13157	0.37347	9.07127	9.93970	9.32970	60	9.13834	0.38236	9.08016	9.94182	9.32293		
	a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'		

Declination 60°.

Diff. 0.00030.

1		11		21	
1	1	11	6	21	11
2	1	12	6	22	11
3	2	13	7	23	12
4	2	14	7	24	12
5	3	15	8	25	13
6	3	16	8	26	13
7	4	17	9	27	14
8	4	18	9	28	14
9	5	19	10	29	15
10	5	20	10	30	15

N.P.D. Tables for Star Constants, 1880.

29° to 28°						κ=0.4875.						c'=1.30220.						d'=0.00000. 151° to 152°					
	a=b	c	d	a'=b'	sa'			a=b	c	d	a'=b'	sa'			a=b	c	d	a'=b'	sa'				
0	9.13834	0.38236	9.08016	9.94182	9.32293	30	9.14525	0.39135	9.08915	9.94390	9.31602												
1	9.13857	0.38266	9.08046	9.94189	9.32270	31	9.14548	0.39165	9.08945	9.94397	9.31579												
2	9.13879	0.38295	9.08075	9.94196	9.32248	32	9.14571	0.39195	9.08975	9.94404	9.31556												
3	9.13902	0.38325	9.08105	9.94203	9.32225	33	9.14595	0.39225	9.09005	9.94410	9.31531												
4	9.13925	0.38355	9.08135	9.94210	9.32202	34	9.14618	0.39255	9.09035	9.94417	9.31509												
5	9.13948	0.38385	9.08165	9.94217	9.32179	35	9.14641	0.39285	9.09065	9.94424	9.31486												
6	9.13971	0.38415	9.08195	9.94224	9.32156	36	9.14665	0.39316	9.09096	9.94431	9.31461												
7	9.13994	0.38445	9.08225	9.94231	9.32133	37	9.14688	0.39346	9.09126	9.94438	9.31439												
8	9.14017	0.38474	9.08254	9.94238	9.32110	38	9.14711	0.39376	9.09156	9.94445	9.31416												
9	9.14040	0.38504	9.08284	9.94245	9.32087	39	9.14735	0.39406	9.09186	9.94451	9.31392												
10	9.14063	0.38534	9.08314	9.94252	9.32064	40	9.14758	0.39436	9.09216	9.94458	9.31369												
11	9.14086	0.38564	9.08344	9.94259	9.32041	41	9.14782	0.39467	9.09247	9.94465	9.31345												
12	9.14108	0.38594	9.08374	9.94266	9.32019	42	9.14805	0.39497	9.09277	9.94472	9.31322												
13	9.14131	0.38624	9.08404	9.94273	9.31996	43	9.14829	0.39527	9.09307	9.94479	9.31298												
14	9.14154	0.38654	9.08434	9.94279	9.31973	44	9.14852	0.39557	9.09337	9.94485	9.31275												
15	9.14178	0.38684	9.08464	9.94286	9.31949	45	9.14876	0.39588	9.09368	9.94492	9.31251												
16	9.14201	0.38714	9.08494	9.94293	9.31926	46	9.14899	0.39618	9.09398	9.94499	9.31228												
17	9.14224	0.38744	9.08524	9.94300	9.31903	47	9.14923	0.39648	9.09428	9.94506	9.31204												
18	9.14247	0.38774	9.08554	9.94307	9.31880	48	9.14946	0.39679	9.09459	9.94513	9.31181												
19	9.14270	0.38804	9.08584	9.94314	9.31857	49	9.14970	0.39709	9.09489	9.94519	9.31157												
20	9.14293	0.38834	9.08614	9.94321	9.31834	50	9.14993	0.39739	9.09519	9.94526	9.31134												
21	9.14316	0.38864	9.08644	9.94328	9.31811	51	9.15017	0.39770	9.09550	9.94533	9.31110												
22	9.14339	0.38894	9.08674	9.94335	9.31788	52	9.15041	0.39800	9.09580	9.94540	9.31086												
23	9.14362	0.38924	9.08704	9.94342	9.31765	53	9.15064	0.39831	9.09611	9.94546	9.31063												
24	9.14385	0.38954	9.08734	9.94349	9.31742	54	9.15088	0.39861	9.09641	9.94553	9.31039												
25	9.14409	0.38984	9.08764	9.94355	9.31718	55	9.15111	0.39891	9.09671	9.94560	9.31016												
26	9.14432	0.39014	9.08794	9.94362	9.31695	56	9.15135	0.39922	9.09702	9.94567	9.30992												
27	9.14455	0.39044	9.08824	9.94369	9.31672	57	9.15159	0.39952	9.09732	9.94573	9.30968												
28	9.14478	0.39074	9.08854	9.94376	9.31649	58	9.15183	0.39983	9.09763	9.94580	9.30944												
29	9.14501	0.39104	9.08884	9.94383	9.31626	59	9.15206	0.40013	9.09793	9.94587	9.30921												
30	9.14525	0.39135	9.08915	9.94390	9.31602	60	9.15230	0.40044	9.09824	9.94593	9.30897												
	a=b	c	d	a'=b'	sa'			a=b	c	d	a'=b'	sa'			a=b	c	d	a'=b'	sa'				

Declination 61°.

Diff. 0.00030.

1	1	11	6	21	11
2	1	12	6	22	11
3	2	13	7	23	12
4	2	14	7	24	12
5	3	15	8	25	13
6	3	16	8	26	13
7	4	17	9	27	14
8	4	18	9	28	14
9	5	19	10	29	15
10	5	20	10	30	15

N.P.D. Tables for Star Constants, 1880.

28° to 27°						c' = 1'30220.						152° to 153°					
sc = 0'4875.						d' = 0'00000.											
	a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'
0	9'15230	0'40044	9'09824	9'94593	9'30897	30	9'15950	0'40963	9'10743	9'94793	9'30177						
1	9'15254	0'40074	9'09854	9'94600	9'30873	31	9'15975	0'40994	9'10774	9'94799	9'30152						
2	9'15278	0'40105	9'09885	9'94607	9'30849	32	9'15999	0'41025	9'10805	9'94806	9'30128						
3	9'15301	0'40135	9'09915	9'94614	9'30826	33	9'16023	0'41056	9'10836	9'94813	9'30104						
4	9'15325	0'40166	9'09946	9'94620	9'30802	34	9'16048	0'41087	9'10867	9'94819	9'30079						
5	9'15349	0'40196	9'09976	9'94627	9'30778	35	9'16072	0'41118	9'10898	9'94826	9'30055						
6	9'15373	0'40227	9'10007	9'94634	9'30754	36	9'16096	0'41149	9'10929	9'94832	9'30031						
7	9'15397	0'40257	9'10037	9'94640	9'30730	37	9'16121	0'41180	9'10960	9'94839	9'30006						
8	9'15421	0'40288	9'10068	9'94647	9'30706	38	9'16145	0'41210	9'10990	9'94845	9'29982						
9	9'15445	0'40318	9'10098	9'94654	9'30682	39	9'16170	0'41241	9'11021	9'94852	9'29957						
10	9'15469	0'40349	9'10129	9'94660	9'30658	40	9'16194	0'41272	9'11052	9'94858	9'29933						
11	9'15492	0'40380	9'10160	9'94667	9'30635	41	9'16218	0'41303	9'11083	9'94865	9'29909						
12	9'15516	0'40410	9'10190	9'94674	9'30611	42	9'16243	0'41334	9'11114	9'94871	9'29884						
13	9'15540	0'40441	9'10221	9'94680	9'30587	43	9'16267	0'41365	9'11145	9'94878	9'29860						
14	9'15564	0'40471	9'10251	9'94687	9'30563	44	9'16292	0'41396	9'11176	9'94885	9'29835						
15	9'15588	0'40502	9'10282	9'94694	9'30539	45	9'16316	0'41427	9'11207	9'94891	9'29811						
16	9'15612	0'40533	9'10313	9'94700	9'30515	46	9'16341	0'41458	9'11238	9'94898	9'29786						
17	9'15636	0'40563	9'10343	9'94707	9'30491	47	9'16366	0'41490	9'11270	9'94904	9'29761						
18	9'15660	0'40594	9'10374	9'94714	9'30467	48	9'16390	0'41521	9'11301	9'94911	9'29737						
19	9'15685	0'40625	9'10405	9'94720	9'30442	49	9'16415	0'41552	9'11332	9'94917	9'29712						
20	9'15709	0'40656	9'10436	9'94727	9'30418	50	9'16439	0'41583	9'11363	9'94923	9'29688						
21	9'15733	0'40686	9'10466	9'94734	9'30394	51	9'16464	0'41614	9'11394	9'94930	9'29663						
22	9'15757	0'40717	9'10497	9'94740	9'30370	52	9'16489	0'41645	9'11425	9'94936	9'29638						
23	9'15781	0'40748	9'10528	9'94747	9'30346	53	9'16513	0'41676	9'11456	9'94943	9'29614						
24	9'15805	0'40778	9'10558	9'94753	9'30322	54	9'16538	0'41707	9'11487	9'94949	9'29589						
25	9'15829	0'40809	9'10589	9'94760	9'30298	55	9'16563	0'41738	9'11518	9'94956	9'29564						
26	9'15854	0'40840	9'10620	9'94767	9'30273	56	9'16587	0'41770	9'11550	9'94962	9'29540						
27	9'15878	0'40871	9'10651	9'94773	9'30249	57	9'16612	0'41801	9'11581	9'94969	9'29515						
28	9'15902	0'40902	9'10682	9'94780	9'30225	58	9'16637	0'41832	9'11612	9'94975	9'29490						
29	9'15926	0'40932	9'10712	9'94786	9'30201	59	9'16662	0'41863	9'11643	9'94982	9'29465						
30	9'15950	0'40963	9'10743	9'94793	9'30177	60	9'16686	0'41894	9'11674	9'94988	9'29441						
	a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'

Declination 62°.

Diff. 0'00031.

1	1	11	6	21	11
2	1	12	6	22	11
3	2	13	7	23	12
4	2	14	7	24	12
5	3	15	8	25	13
6	3	16	8	26	13
7	4	17	9	27	14
8	4	18	9	28	14
9	5	19	10	29	15
10	5	20	10	30	16

N.P.D. Tables for Star Constants, 1880.

27° to 28°						c=0.4875.						c=1.30220.						d=0.00000.						153° to 154°					
	a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'
0	9.16686	0.41894	9.11674	9.94988	9.29441	30	9.17438	0.42837	9.12617	9.95179	9.28689																		
1	9.16711	0.41926	9.11706	9.94995	9.29416	31	9.17464	0.42869	9.12649	9.95185	9.28663																		
2	9.16736	0.41957	9.11737	9.95001	9.29391	32	9.17489	0.42901	9.12681	9.95192	9.28638																		
3	9.16761	0.41988	9.11768	9.95007	9.29366	33	9.17514	0.42932	9.12712	9.95198	9.28613																		
4	9.16786	0.42019	9.11799	9.95014	9.29341	34	9.17540	0.42964	9.12744	9.95204	9.28587																		
5	9.16811	0.42051	9.11831	9.95020	9.29316	35	9.17565	0.42996	9.12776	9.95211	9.28562																		
6	9.16835	0.42082	9.11862	9.95027	9.29292	36	9.17591	0.43027	9.12807	9.95217	9.28536																		
7	9.16860	0.42113	9.11893	9.95033	9.29267	37	9.17616	0.43059	9.12839	9.95223	9.28511																		
8	9.16885	0.42145	9.11925	9.95039	9.29242	38	9.17642	0.43091	9.12871	9.95229	9.28485																		
9	9.16910	0.42176	9.11956	9.95046	9.29217	39	9.17667	0.43123	9.12903	9.95236	9.28460																		
10	9.16935	0.42207	9.11987	9.95052	9.29192	40	9.17693	0.43154	9.12934	9.95242	9.28434																		
11	9.16960	0.42239	9.12019	9.95059	9.29167	41	9.17718	0.43186	9.12966	9.95248	9.28409																		
12	9.16985	0.42270	9.12050	9.95065	9.29142	42	9.17744	0.43218	9.12998	9.95254	9.28383																		
13	9.17010	0.42302	9.12082	9.95071	9.29117	43	9.17769	0.43250	9.13030	9.95261	9.28358																		
14	9.17035	0.42333	9.12113	9.95078	9.29092	44	9.17795	0.43282	9.13062	9.95267	9.28332																		
15	9.17060	0.42364	9.12144	9.95084	9.29067	45	9.17820	0.43313	9.13093	9.95273	9.28307																		
16	9.17085	0.42396	9.12176	9.95090	9.29042	46	9.17846	0.43345	9.13125	9.95279	9.28281																		
17	9.17110	0.42427	9.12207	9.95097	9.29017	47	9.17872	0.43377	9.13157	9.95286	9.28255																		
18	9.17136	0.42459	9.12239	9.95103	9.28991	48	9.17897	0.43409	9.13189	9.95292	9.28230																		
19	9.17161	0.42490	9.12270	9.95110	9.28966	49	9.17923	0.43441	9.13221	9.95298	9.28204																		
20	9.17186	0.42522	9.12302	9.95116	9.28941	50	9.17949	0.43473	9.13253	9.95304	9.28178																		
21	9.17211	0.42553	9.12333	9.95122	9.28916	51	9.17974	0.43505	9.13285	9.95310	9.28153																		
22	9.17236	0.42585	9.12365	9.95129	9.28891	52	9.18000	0.43537	9.13317	9.95317	9.28127																		
23	9.17261	0.42616	9.12396	9.95135	9.28866	53	9.18026	0.43569	9.13349	9.95323	9.28101																		
24	9.17287	0.42648	9.12428	9.95141	9.28840	54	9.18052	0.43601	9.13381	9.95329	9.28075																		
25	9.17312	0.42679	9.12459	9.95148	9.28815	55	9.18078	0.43633	9.13413	9.95335	9.28049																		
26	9.17337	0.42711	9.12491	9.95154	9.28790	56	9.18103	0.43665	9.13445	9.95341	9.28024																		
27	9.17362	0.42743	9.12523	9.95160	9.28765	57	9.18129	0.43697	9.13477	9.95348	9.27998																		
28	9.17388	0.42774	9.12554	9.95167	9.28739	58	9.18155	0.43729	9.13509	9.95354	9.27972																		
29	9.17413	0.42806	9.12586	9.95173	9.28714	59	9.18181	0.43761	9.13541	9.95360	9.27946																		
30	9.17438	0.42837	9.12617	9.95179	9.28689	60	9.18207	0.43793	9.13573	9.95366	9.27920																		
	a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'

Declination 63°.

Diff. 0.00032.

1	1	11	6	21	11
2	1	12	6	22	12
3	2	13	7	23	12
4	2	14	7	24	13
5	3	15	8	25	13
6	3	16	9	26	14
7	4	17	9	27	14
8	4	18	10	28	15
9	5	19	10	29	15
10	5	20	11	30	16

N.P.D. Tables for Star Constants, 1880.

26° to 25°						c'=0'4875						c'=1'30220						d'=0'00000						154° to 155°					
	a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'
0	9'18207	0'43793	9'13573	9'95366	9'27920	30	9'18993	0'44761	9'14541	9'95549	9'27134																		
1	9'18211	0'43825	9'13605	9'95372	9'27894	31	9'19019	0'44794	9'14574	9'95555	9'27108																		
2	9'18259	0'43857	9'13637	9'95378	9'27868	32	9'19046	0'44826	9'14606	9'95561	9'27081																		
3	9'18285	0'43889	9'13669	9'95384	9'27842	33	9'19072	0'44859	9'14639	9'95567	9'27055																		
4	9'18311	0'43921	9'13701	9'95391	9'27816	34	9'19099	0'44892	9'14672	9'95573	9'27028																		
5	9'18337	0'43953	9'13733	9'95397	9'27790	35	9'19125	0'44924	9'14704	9'95579	9'27002																		
6	9'18363	0'43985	9'13765	9'95403	9'27764	36	9'19152	0'44957	9'14737	9'95585	9'26975																		
7	9'18389	0'44018	9'13798	9'95409	9'27738	37	9'19178	0'44989	9'14769	9'95591	9'26949																		
8	9'18415	0'44050	9'13830	9'95415	9'27712	38	9'19205	0'45022	9'14802	9'95597	9'26922																		
9	9'18441	0'44082	9'13862	9'95421	9'27686	39	9'19232	0'45055	9'14835	9'95603	9'26895																		
10	9'18467	0'44114	9'13894	9'95427	9'27660	40	9'19258	0'45087	9'14867	9'95609	9'26869																		
11	9'18493	0'44146	9'13926	9'95434	9'27634	41	9'19285	0'45120	9'14900	9'95615	9'26842																		
12	9'18519	0'44179	9'13959	9'95440	9'27608	42	9'19312	0'45153	9'14933	9'95621	9'26815																		
13	9'18545	0'44211	9'13991	9'95446	9'27582	43	9'19339	0'45185	9'14965	9'95627	9'26788																		
14	9'18571	0'44243	9'14023	9'95452	9'27556	44	9'19365	0'45218	9'14998	9'95633	9'26762																		
15	9'18597	0'44275	9'14055	9'95458	9'27530	45	9'19392	0'45251	9'15031	9'95639	9'26735																		
16	9'18624	0'44308	9'14088	9'95464	9'27503	46	9'19419	0'45284	9'15064	9'95645	9'26708																		
17	9'18650	0'44340	9'14120	9'95470	9'27477	47	9'19446	0'45316	9'15096	9'95651	9'26681																		
18	9'18676	0'44372	9'14152	9'95476	9'27451	48	9'19473	0'45349	9'15129	9'95657	9'26654																		
19	9'18702	0'44405	9'14185	9'95482	9'27425	49	9'19499	0'45382	9'15162	9'95663	9'26628																		
20	9'18729	0'44437	9'14217	9'95488	9'27398	50	9'19526	0'45415	9'15195	9'95668	9'26601																		
21	9'18755	0'44469	9'14249	9'95494	9'27372	51	9'19553	0'45448	9'15228	9'95674	9'26574																		
22	9'18781	0'44502	9'14282	9'95500	9'27346	52	9'19580	0'45480	9'15260	9'95680	9'26547																		
23	9'18808	0'44534	9'14314	9'95507	9'27319	53	9'19607	0'45513	9'15293	9'95686	9'26520																		
24	9'18834	0'44567	9'14347	9'95513	9'27293	54	9'19634	0'45546	9'15326	9'95692	9'26493																		
25	9'18860	0'44599	9'14379	9'95519	9'27267	55	9'19661	0'45579	9'15359	9'95698	9'26466																		
26	9'18887	0'44631	9'14411	9'95525	9'27240	56	9'19688	0'45612	9'15392	9'95704	9'26439																		
27	9'18913	0'44664	9'14444	9'95531	9'27214	57	9'19715	0'45645	9'15425	9'95710	9'26412																		
28	9'18940	0'44696	9'14476	9'95537	9'27187	58	9'19742	0'45678	9'15458	9'95716	9'26385																		
29	9'18966	0'44729	9'14509	9'95543	9'27161	59	9'19769	0'45711	9'15491	9'95722	9'26358																		
30	9'18993	0'44761	9'14541	9'95549	9'27134	60	9'19796	0'45744	9'15524	9'95728	9'26331																		
	a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'

Declination 64°.

Diff. 0'00033.

1	1	11	6	21	12
2	1	12	7	22	12
3	2	13	7	23	13
4	2	14	8	24	13
5	3	15	8	25	14
6	3	16	9	26	14
7	4	17	9	27	15
8	4	18	10	28	15
9	5	19	10	29	16
10	6	20	11	30	17

N.P.D. Tables for Star Constants, 1880.

25° to 24°						c=0'4875.						c'=1'30220						d=0'00000.						155° to 156°					
	a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'
0	9'19796	0'45744	9'15524	9'95728	9'26331	30	9'20618	0'46741	9'16521	9'95902	9'25509																		
1	9'19823	0'45777	9'15557	9'95733	9'26304	31	9'20646	0'46774	9'16554	9'95908	9'25481																		
2	9'19850	0'45810	9'15590	9'95739	9'26277	32	9'20674	0'46808	9'16588	9'95914	9'25453																		
3	9'19878	0'45843	9'15623	9'95745	9'26249	33	9'20702	0'46841	9'16621	9'95920	9'25425																		
4	9'19905	0'45876	9'15656	9'95751	9'26222	34	9'20729	0'46875	9'16655	9'95925	9'25398																		
5	9'19932	0'45909	9'15689	9'95757	9'26195	35	9'20757	0'46908	9'16688	9'95931	9'25370																		
6	9'19959	0'45942	9'15722	9'95763	9'26168	36	9'20785	0'46942	9'16722	9'95937	9'25342																		
7	9'19986	0'45975	9'15755	9'95769	9'26141	37	9'20813	0'46975	9'16755	9'95942	9'25314																		
8	9'20014	0'46008	9'15788	9'95775	9'26113	38	9'20841	0'47009	9'16789	9'95948	9'25286																		
9	9'20041	0'46041	9'15821	9'95780	9'26086	39	9'20869	0'47043	9'16822	9'95954	9'25258																		
10	9'20068	0'46074	9'15854	9'95786	9'26059	40	9'20897	0'47076	9'16856	9'95960	9'25230																		
11	9'20095	0'46108	9'15888	9'95792	9'26032	41	9'20925	0'47110	9'16890	9'95965	9'25202																		
12	9'20123	0'46141	9'15921	9'95798	9'26004	42	9'20953	0'47144	9'16924	9'95971	9'25174																		
13	9'20150	0'46174	9'15954	9'95804	9'25977	43	9'20980	0'47177	9'16957	9'95977	9'25147																		
14	9'20177	0'46207	9'15987	9'95810	9'25950	44	9'21009	0'47211	9'16991	9'95982	9'25118																		
15	9'20205	0'46240	9'16020	9'95815	9'25922	45	9'21037	0'47245	9'17025	9'95988	9'25090																		
16	9'20232	0'46274	9'16054	9'95821	9'25895	46	9'21065	0'47278	9'17058	9'95994	9'25062																		
17	9'20260	0'46307	9'16087	9'95827	9'25867	47	9'21093	0'47312	9'17092	9'96000	9'25034																		
18	9'20287	0'46340	9'16120	9'95833	9'25840	48	9'21121	0'47346	9'17126	9'96005	9'25006																		
19	9'20315	0'46373	9'16153	9'95839	9'25812	49	9'21149	0'47380	9'17160	9'96011	9'24978																		
20	9'20342	0'46407	9'16187	9'95844	9'25785	50	9'21177	0'47414	9'17194	9'96017	9'24950																		
21	9'20370	0'46440	9'16220	9'95850	9'25757	51	9'21205	0'47447	9'17227	9'96022	9'24922																		
22	9'20397	0'46473	9'16253	9'95856	9'25730	52	9'21233	0'47481	9'17261	9'96028	9'24894																		
23	9'20425	0'46507	9'16287	9'95862	9'25702	53	9'21262	0'47515	9'17295	9'96034	9'24865																		
24	9'20452	0'46540	9'16320	9'95868	9'25675	54	9'21290	0'47549	9'17329	9'96039	9'24837																		
25	9'20480	0'46573	9'16353	9'95873	9'25647	55	9'21318	0'47583	9'17363	9'96045	9'24809																		
26	9'20508	0'46607	9'16387	9'95879	9'25619	56	9'21346	0'47617	9'17397	9'96050	9'24781																		
27	9'20535	0'46640	9'16420	9'95885	9'25592	57	9'21375	0'47651	9'17431	9'96056	9'24752																		
28	9'20563	0'46674	9'16454	9'95891	9'25564	58	9'21403	0'47685	9'17465	9'96062	9'24724																		
29	9'20591	0'46707	9'16487	9'95897	9'25536	59	9'21431	0'47719	9'17499	9'96067	9'24696																		
30	9'20618	0'46741	9'16521	9'95902	9'25509	60	9'21460	0'47753	9'17533	9'96073	9'24667																		
	a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'

Declination 65°.

Diff. 0'00034.

"	"	"	"	"	"
1	1	11	6	21	12
2	1	12	7	22	12
3	2	13	7	23	13
4	2	14	8	24	14
5	3	15	9	25	14
6	3	16	9	26	15
7	4	17	10	27	15
8	5	18	10	28	16
9	5	19	11	29	16
10	6	20	11	30	17

N.P.D. Tables for Star Constants, 1886.

24° to 28°						156° to 157°					
sc=0.4875.						c'=1.30220.					
d'=0.00000.											
	a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'
0	9.21460	0.47753	9.17533	9.96073	9.24667	30	9.22321	0.48781	9.18561	9.96240	9.23806
1	9.21488	0.47787	9.17567	9.96079	9.24639	31	9.22350	0.48815	9.18595	9.96245	9.23777
2	9.21516	0.47821	9.17601	9.96084	9.24611	32	9.22379	0.48850	9.18630	9.96251	9.23748
3	9.21545	0.47855	9.17635	9.96090	9.24582	33	9.22408	0.48885	9.18665	9.96256	9.23719
4	9.21573	0.47889	9.17669	9.96095	9.24554	34	9.22437	0.48919	9.18699	9.96262	9.23690
5	9.21602	0.47923	9.17703	9.96101	9.24525	35	9.22467	0.48954	9.18734	9.96267	9.23660
6	9.21630	0.47957	9.17737	9.96107	9.24497	36	9.22496	0.48989	9.18768	9.96273	9.23631
7	9.21659	0.47991	9.17771	9.96112	9.24468	37	9.22525	0.49023	9.18803	9.96278	9.23602
8	9.21687	0.48025	9.17805	9.96118	9.24440	38	9.22554	0.49058	9.18838	9.96284	9.23573
9	9.21716	0.48059	9.17839	9.96123	9.24411	39	9.22583	0.49092	9.18872	9.96289	9.23544
10	9.21745	0.48094	9.17874	9.96129	9.24382	40	9.22613	0.49127	9.18907	9.96294	9.23514
11	9.21773	0.48128	9.17908	9.96135	9.24354	41	9.22642	0.49162	9.18942	9.96300	9.23485
12	9.21802	0.48162	9.17942	9.96140	9.24325	42	9.22671	0.49197	9.18977	9.96305	9.23456
13	9.21830	0.48196	9.17976	9.96146	9.24297	43	9.22701	0.49232	9.19012	9.96311	9.23426
14	9.21859	0.48230	9.18010	9.96151	9.24268	44	9.22730	0.49266	9.19046	9.96316	9.23397
15	9.21888	0.48265	9.18045	9.96157	9.24239	45	9.22759	0.49301	9.19081	9.96322	9.23368
16	9.21917	0.48299	9.18079	9.96162	9.24210	46	9.22789	0.49336	9.19116	9.96327	9.23338
17	9.21945	0.48333	9.18113	9.96168	9.24182	47	9.22818	0.49371	9.19151	9.96333	9.23309
18	9.21974	0.48368	9.18148	9.96174	9.24153	48	9.22848	0.49406	9.19186	9.96338	9.23279
19	9.22003	0.48402	9.18182	9.96179	9.24124	49	9.22877	0.49441	9.19221	9.96343	9.23250
20	9.22032	0.48436	9.18216	9.96185	9.24095	50	9.22907	0.49476	9.19256	9.96349	9.23220
21	9.22060	0.48471	9.18251	9.96190	9.24067	51	9.22936	0.49510	9.19290	9.96354	9.23191
22	9.22089	0.48505	9.18285	9.96196	9.24038	52	9.22966	0.49545	9.19325	9.96360	9.23161
23	9.22118	0.48539	9.18319	9.96201	9.24009	53	9.22995	0.49580	9.19360	9.96365	9.23132
24	9.22147	0.48574	9.18354	9.96207	9.23980	54	9.23025	0.49615	9.19395	9.96370	9.23102
25	9.22176	0.48608	9.18388	9.96212	9.23951	55	9.23055	0.49650	9.19430	9.96376	9.23072
26	9.22205	0.48643	9.18423	9.96218	9.23922	56	9.23084	0.49685	9.19465	9.96381	9.23043
27	9.22234	0.48677	9.18457	9.96223	9.23893	57	9.23114	0.49721	9.19501	9.96387	9.23013
28	9.22263	0.48712	9.18492	9.96229	9.23864	58	9.23144	0.49756	9.19536	9.96392	9.22983
29	9.22292	0.48746	9.18526	9.96234	9.23835	59	9.23173	0.49791	9.19571	9.96397	9.22954
30	9.22321	0.48781	9.18561	9.96240	9.23806	60	9.23203	0.49826	9.19606	9.96403	9.22924
	a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'

Declination 66°.

Diff. 0.00035.

a		a		a	
1	1	11	6	21	12
2	1	12	7	22	13
3	2	13	8	23	13
4	2	14	8	24	14
5	3	15	9	25	15
6	3	16	9	26	15
7	4	17	10	27	16
8	5	18	10	28	16
9	5	19	11	29	17
10	6	20	12	30	18

N.P.D. Tables for Star Constants, 1880.

23° to 22°						157° to 158°					
sc=0.4875.						c!=1.30220.					
d!=0.00000.											
	a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'
0	9.23203	0.49826	9.19606	9.96403	9.22924	30	9.24107	0.50889	9.20669	9.96562	9.22020
1	9.23233	0.49861	9.19641	9.96408	9.22894	31	9.24138	0.50924	9.20704	9.96567	9.21989
2	9.23263	0.49896	9.19676	9.96413	9.22864	32	9.24168	0.50960	9.20740	9.96572	9.21959
3	9.23293	0.49931	9.19711	9.96419	9.22834	33	9.24199	0.50996	9.20776	9.96577	9.21928
4	9.23322	0.49966	9.19746	9.96424	9.22805	34	9.24229	0.51032	9.20812	9.96582	9.21898
5	9.23352	0.50002	9.19782	9.96429	9.22775	35	9.24260	0.51067	9.20847	9.96588	9.21867
6	9.23382	0.50037	9.19817	9.96435	9.22745	36	9.24290	0.51103	9.20883	9.96593	9.21837
7	9.23412	0.50072	9.19852	9.96440	9.22715	37	9.24321	0.51139	9.20919	9.96598	9.21806
8	9.23442	0.50107	9.19887	9.96445	9.22685	38	9.24352	0.51175	9.20955	9.96603	9.21775
9	9.23472	0.50143	9.19923	9.96451	9.22655	39	9.24383	0.51211	9.20991	9.96608	9.21744
10	9.23502	0.50178	9.19958	9.96456	9.22625	40	9.24413	0.51247	9.21027	9.96614	9.21714
11	9.23532	0.50213	9.19993	9.96461	9.22595	41	9.24444	0.51283	9.21063	9.96619	9.21683
12	9.23562	0.50249	9.20029	9.96467	9.22565	42	9.24475	0.51319	9.21099	9.96624	9.21652
13	9.23592	0.50284	9.20064	9.96472	9.22535	43	9.24506	0.51355	9.21135	9.96629	9.21621
14	9.23622	0.50319	9.20099	9.96477	9.22505	44	9.24536	0.51391	9.21171	9.96634	9.21591
15	9.23652	0.50355	9.20135	9.96483	9.22475	45	9.24567	0.51427	9.21207	9.96640	9.21560
16	9.23682	0.50390	9.20170	9.96488	9.22445	46	9.24598	0.51463	9.21243	9.96645	9.21529
17	9.23713	0.50426	9.20206	9.96493	9.22414	47	9.24629	0.51499	9.21279	9.96650	9.21498
18	9.23743	0.50461	9.20241	9.96498	9.22384	48	9.24660	0.51535	9.21315	9.96655	9.21467
19	9.23773	0.50497	9.20277	9.96504	9.22354	49	9.24691	0.51571	9.21351	9.96660	9.21436
20	9.23803	0.50532	9.20312	9.96509	9.22324	50	9.24722	0.51607	9.21387	9.96665	9.21405
21	9.23834	0.50568	9.20348	9.96514	9.22293	51	9.24753	0.51644	9.21424	9.96670	9.21374
22	9.23864	0.50603	9.20383	9.96520	9.22263	52	9.24784	0.51680	9.21460	9.96676	9.21343
23	9.23894	0.50639	9.20419	9.96525	9.22233	53	9.24815	0.51716	9.21496	9.96681	9.21312
24	9.23924	0.50675	9.20455	9.96530	9.22203	54	9.24846	0.51752	9.21532	9.96686	9.21281
25	9.23955	0.50710	9.20490	9.96535	9.22172	55	9.24877	0.51788	9.21568	9.96691	9.21250
26	9.23985	0.50746	9.20526	9.96541	9.22142	56	9.24909	0.51825	9.21605	9.96696	9.21218
27	9.24016	0.50781	9.20561	9.96546	9.22111	57	9.24940	0.51861	9.21641	9.96701	9.21187
28	9.24046	0.50817	9.20597	9.96551	9.22081	58	9.24971	0.51897	9.21677	9.96706	9.21156
29	9.24077	0.50853	9.20633	9.96556	9.22050	59	9.25002	0.51934	9.21714	9.96711	9.21125
30	9.24107	0.50889	9.20669	9.96562	9.22020	60	9.25033	0.51970	9.21750	9.96717	9.21094
	a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'

Declination 67°.

Diff. 0.00036.

1	1	11	7	21	13
2	1	12	7	22	13
3	2	13	8	23	14
4	2	14	8	24	14
5	3	15	9	25	15
6	4	16	10	26	16
7	4	17	10	27	16
8	5	18	11	28	17
9	5	19	11	29	17
10	6	20	12	30	18

N.P.D. Tables for Star Constants, 1880.

22° to 21°						156° to 159°					
sc=0.4875.						cl=1.30220.					
d'=0.00000.											
	a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'
0	9'25033	0'51970	9'21750	9'96717	9'21094	30	9'25983	0'53071	9'22851	9'96868	9'20144
1	9'25065	0'52006	9'21786	9'96722	9'21062	31	9'26016	0'53108	9'22888	9'96873	9'20111
2	9'25096	0'52043	9'21823	9'96727	9'21031	32	9'26048	0'53145	9'22925	9'96878	9'20079
3	9'25127	0'52079	9'21859	9'96732	9'21000	33	9'26080	0'53182	9'22962	9'96883	9'20047
4	9'25159	0'52116	9'21896	9'96737	9'20968	34	9'26112	0'53220	9'23000	9'96888	9'20015
5	9'25190	0'52152	9'21932	9'96742	9'20937	35	9'26144	0'53257	9'23037	9'96893	9'19983
6	9'25222	0'52189	9'21969	9'96747	9'20905	36	9'26176	0'53294	9'23074	9'96898	9'19951
7	9'25253	0'52225	9'22005	9'96752	9'20874	37	9'26209	0'53331	9'23111	9'96903	9'19918
8	9'25284	0'52262	9'22042	9'96757	9'20843	38	9'26241	0'53368	9'23148	9'96907	9'19886
9	9'25316	0'52298	9'22078	9'96762	9'20811	39	9'26273	0'53406	9'23186	9'96912	9'19854
10	9'25347	0'52335	9'22115	9'96767	9'20780	40	9'26306	0'53443	9'23223	9'96917	9'19821
11	9'25379	0'52371	9'22151	9'96772	9'20748	41	9'26338	0'53480	9'23260	9'96922	9'19789
12	9'25411	0'52408	9'22188	9'96778	9'20716	42	9'26370	0'53517	9'23297	9'96927	9'19757
13	9'25442	0'52445	9'22225	9'96783	9'20685	43	9'26403	0'53555	9'23335	9'96932	9'19724
14	9'25474	0'52481	9'22261	9'96788	9'20653	44	9'26435	0'53592	9'23372	9'96937	9'19692
15	9'25505	0'52518	9'22298	9'96793	9'20622	45	9'26468	0'53630	9'23410	9'96942	9'19659
16	9'25537	0'52555	9'22335	9'96798	9'20590	46	9'26500	0'53667	9'23447	9'96947	9'19627
17	9'25569	0'52592	9'22372	9'96803	9'20558	47	9'26533	0'53704	9'23484	9'96952	9'19594
18	9'25601	0'52628	9'22408	9'96808	9'20526	48	9'26565	0'53742	9'23522	9'96957	9'19562
19	9'25632	0'52665	9'22445	9'96813	9'20495	49	9'26598	0'53779	9'23559	9'96962	9'19529
20	9'25664	0'52702	9'22482	9'96818	9'20463	50	9'26630	0'53817	9'23597	9'96966	9'19497
21	9'25696	0'52739	9'22519	9'96823	9'20431	51	9'26663	0'53854	9'23634	9'96971	9'19464
22	9'25728	0'52776	9'22556	9'96828	9'20399	52	9'26696	0'53892	9'23672	9'96976	9'19431
23	9'25760	0'52812	9'22592	9'96833	9'20367	53	9'26728	0'53930	9'23710	9'96981	9'19399
24	9'25792	0'52849	9'22629	9'96838	9'20335	54	9'26761	0'53967	9'23747	9'96986	9'19366
25	9'25823	0'52886	9'22666	9'96843	9'20304	55	9'26794	0'54005	9'23785	9'96991	9'19333
26	9'25855	0'52923	9'22703	9'96848	9'20272	56	9'26827	0'54042	9'23822	9'96996	9'19300
27	9'25887	0'52960	9'22740	9'96853	9'20240	57	9'26859	0'54080	9'23860	9'97001	9'19268
28	9'25919	0'52997	9'22777	9'96858	9'20208	58	9'26892	0'54118	9'23898	9'97005	9'19235
29	9'25951	0'53034	9'22814	9'96863	9'20176	59	9'26925	0'54156	9'23936	9'97010	9'19202
30	9'25983	0'53071	9'22851	9'96868	9'20144	60	9'26958	0'54193	9'23973	9'97015	9'19169
	a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'

Declination 68°.

Diff. 0.00037.

"	"	"	"	"	"
1	1	11	7	21	13
2	1	12	7	22	14
3	2	13	8	23	14
4	2	14	9	24	15
5	3	15	9	25	15
6	4	16	10	26	16
7	4	17	10	27	17
8	5	18	11	28	17
9	6	19	12	29	18
10	6	20	12	30	19

N.P.D. Tables for Star Constants, 1880.

21° to 20°						150° to 160°					
ac=0.4875.						d=1.30220.					
c=1.00000.						d=1.00000.					
	a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'
0	9.26958	0.54193	9.23973	9.97015	9.19169	30	9.27958	0.55337	9.25117	9.97159	9.18169
1	9.26991	0.54231	9.24011	9.97020	9.19136	31	9.27992	0.55376	9.25156	9.97163	9.18135
2	9.27024	0.54269	9.24049	9.97025	9.19103	32	9.28026	0.55414	9.25194	9.97168	9.18101
3	9.27057	0.54307	9.24087	9.97030	9.19070	33	9.28060	0.55453	9.25233	9.97173	9.18067
4	9.27090	0.54344	9.24124	9.97035	9.19037	34	9.28094	0.55491	9.25271	9.97178	9.18033
5	9.27123	0.54382	9.24162	9.97039	9.19004	35	9.28128	0.55530	9.25310	9.97182	9.17999
6	9.27156	0.54420	9.24200	9.97044	9.18971	36	9.28162	0.55569	9.25349	9.97187	9.17965
7	9.27189	0.54458	9.24238	9.97049	9.18938	37	9.28196	0.55607	9.25387	9.97192	9.17931
8	9.27222	0.54496	9.24276	9.97054	9.18905	38	9.28230	0.55646	9.25426	9.97196	9.17897
9	9.27255	0.54534	9.24314	9.97059	9.18872	39	9.28264	0.55685	9.25465	9.97201	9.17863
10	9.27289	0.54572	9.24352	9.97063	9.18838	40	9.28298	0.55724	9.25504	9.97206	9.17829
11	9.27322	0.54610	9.24390	9.97068	9.18805	41	9.28332	0.55762	9.25542	9.97210	9.17795
12	9.27355	0.54648	9.24428	9.97073	9.18772	42	9.28366	0.55801	9.25581	9.97215	9.17761
13	9.27388	0.54686	9.24466	9.97078	9.18739	43	9.28400	0.55840	9.25620	9.97220	9.17727
14	9.27422	0.54724	9.24504	9.97083	9.18705	44	9.28434	0.55879	9.25659	9.97224	9.17693
15	9.27455	0.54762	9.24542	9.97087	9.18672	45	9.28469	0.55918	9.25698	9.97229	9.17658
16	9.27488	0.54801	9.24581	9.97092	9.18639	46	9.28503	0.55957	9.25737	9.97234	9.17624
17	9.27522	0.54839	9.24619	9.97097	9.18605	47	9.28537	0.55996	9.25776	9.97238	9.17590
18	9.27555	0.54877	9.24657	9.97102	9.18572	48	9.28572	0.56035	9.25815	9.97243	9.17555
19	9.27589	0.54915	9.24695	9.97107	9.18538	49	9.28606	0.56074	9.25854	9.97248	9.17521
20	9.27622	0.54953	9.24733	9.97111	9.18505	50	9.28640	0.56113	9.25893	9.97252	9.17487
21	9.27656	0.54992	9.24772	9.97116	9.18471	51	9.28675	0.56152	9.25932	9.97257	9.17452
22	9.27689	0.55030	9.24810	9.97121	9.18438	52	9.28709	0.56191	9.25971	9.97262	9.17418
23	9.27723	0.55068	9.24848	9.97126	9.18404	53	9.28744	0.56230	9.26010	9.97266	9.17383
24	9.27756	0.55107	9.24887	9.97130	9.18371	54	9.28778	0.56269	9.26049	9.97271	9.17349
25	9.27790	0.55145	9.24925	9.97135	9.18337	55	9.28813	0.56308	9.26088	9.97276	9.17314
26	9.27824	0.55183	9.24963	9.97140	9.18303	56	9.28847	0.56347	9.26127	9.97280	9.17280
27	9.27857	0.55222	9.25002	9.97145	9.18270	57	9.28882	0.56387	9.26167	9.97285	9.17245
28	9.27891	0.55260	9.25040	9.97149	9.18236	58	9.28916	0.56426	9.26206	9.97289	9.17211
29	9.27925	0.55299	9.25079	9.97154	9.18202	59	9.28951	0.56465	9.26245	9.97294	9.17176
30	9.27958	0.55337	9.25117	9.97159	9.18169	60	9.28986	0.56504	9.26284	9.97299	9.17141
	a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'

Declination 69°.

Diff. 0.00039.

<i>s</i>	<i>s</i>	<i>s</i>	<i>s</i>
1	1	11	7
2	1	12	8
3	2	13	8
4	3	14	9
5	3	15	10
6	4	16	10
7	5	17	11
8	5	18	12
9	6	19	12
10	7	20	13
		21	14
		22	14
		23	15
		24	16
		25	16
		26	17
		27	18
		28	18
		29	19
		30	20

N.P.D. Tables for Star Constants, 1880.

20° to 19°						160° to 161°					
ac=0.4875.						c'=1.30220.					
d'=0.00000.											
	a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'
0	9.28986	0.56504	9.26284	9.97299	9.17141	30	9.30041	0.57696	9.27476	9.97435	9.16086
1	9.29021	0.56544	9.26324	9.97303	9.17106	31	9.30077	0.57736	9.27516	9.97439	9.16050
2	9.29055	0.56583	9.26363	9.97308	9.17072	32	9.30113	0.57776	9.27556	9.97444	9.16014
3	9.29090	0.56622	9.26402	9.97312	9.17037	33	9.30149	0.57817	9.27597	9.97448	9.15978
4	9.29125	0.56662	9.26442	9.97317	9.17002	34	9.30184	0.57857	9.27637	9.97453	9.15943
5	9.29160	0.56701	9.26481	9.97322	9.16967	35	9.30220	0.57897	9.27677	9.97457	9.15907
6	9.29195	0.56741	9.26521	9.97326	9.16932	36	9.30256	0.57938	9.27718	9.97461	9.15871
7	9.29230	0.56780	9.26560	9.97331	9.16897	37	9.30292	0.57978	9.27758	9.97466	9.15835
8	9.29265	0.56820	9.26600	9.97335	9.16862	38	9.30328	0.58018	9.27798	9.97470	9.15799
9	9.29299	0.56859	9.26639	9.97340	9.16828	39	9.30364	0.58059	9.27839	9.97475	9.15763
10	9.29335	0.56899	9.26679	9.97344	9.16792	40	9.30400	0.58099	9.27879	9.97479	9.15727
11	9.29370	0.56938	9.26718	9.97349	9.16757	41	9.30436	0.58140	9.27920	9.97484	9.15691
12	9.29405	0.56978	9.26758	9.97353	9.16722	42	9.30472	0.58180	9.27960	9.97488	9.15655
13	9.29440	0.57018	9.26798	9.97358	9.16687	43	9.30508	0.58221	9.28001	9.97492	9.15619
14	9.29475	0.57057	9.26837	9.97363	9.16652	44	9.30544	0.58261	9.28041	9.97497	9.15583
15	9.29510	0.57097	9.26877	9.97367	9.16617	45	9.30580	0.58302	9.28082	9.97501	9.15547
16	9.29545	0.57137	9.26917	9.97372	9.16582	46	9.30617	0.58342	9.28122	9.97506	9.15510
17	9.29580	0.57177	9.26957	9.97376	9.16547	47	9.30653	0.58383	9.28163	9.97510	9.15474
18	9.29616	0.57216	9.26996	9.97381	9.16511	48	9.30689	0.58424	9.28204	9.97515	9.15438
19	9.29651	0.57256	9.27036	9.97385	9.16476	49	9.30725	0.58464	9.28244	9.97519	9.15402
20	9.29686	0.57296	9.27076	9.97390	9.16441	50	9.30762	0.58505	9.28285	9.97523	9.15365
21	9.29722	0.57336	9.27116	9.97394	9.16405	51	9.30798	0.58546	9.28326	9.97528	9.15329
22	9.29757	0.57376	9.27156	9.97399	9.16370	52	9.30834	0.58586	9.28366	9.97532	9.15293
23	9.29793	0.57416	9.27196	9.97403	9.16334	53	9.30871	0.58627	9.28407	9.97536	9.15256
24	9.29828	0.57456	9.27236	9.97408	9.16299	54	9.30907	0.58668	9.28448	9.97541	9.15220
25	9.29864	0.57496	9.27276	9.97412	9.16263	55	9.30944	0.58709	9.28489	9.97545	9.15183
26	9.29899	0.57536	9.27316	9.97417	9.16228	56	9.30980	0.58750	9.28530	9.97550	9.15147
27	9.29935	0.57576	9.27356	9.97421	9.16192	57	9.31017	0.58791	9.28571	9.97554	9.15110
28	9.29970	0.57616	9.27396	9.97426	9.16157	58	9.31053	0.58832	9.28612	9.97558	9.15074
29	9.30006	0.57656	9.27436	9.97430	9.16121	59	9.31090	0.58873	9.28653	9.97563	9.15037
30	9.30041	0.57696	9.27476	9.97435	9.16086	60	9.31127	0.58914	9.28694	9.97567	9.15000
	a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'

Declination 70°.

Diff. 0.00040.

"	"	"	"	"	"
1	1	11	7	21	14
2	1	12	8	22	15
3	2	13	9	23	15
4	3	14	9	24	16
5	3	15	10	25	17
6	4	16	11	26	17
7	5	17	11	27	18
8	5	18	12	28	19
9	6	19	13	29	19
10	7	20	13	30	20

N.P.D. Tables for Star Constants, 1880.

19° to 18°						161° to 162°					
$\kappa=0.4875.$						$\kappa=1.30220.$					
$d=0.00000.$						$d=0.00000.$					
	a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'
0	9'31127	0'58914	9'28694	9'97567	9'15000	30	9'32243	0'60159	9'29939	9'97696	9'13884
1	9'31164	0'58955	9'28735	9'97571	9'14963	31	9'32281	0'60201	9'29981	9'97700	9'13846
2	9'31200	0'58996	9'28776	9'97576	9'14927	32	9'32319	0'60243	9'30023	9'97704	9'13808
3	9'31237	0'59037	9'28817	9'97580	9'14890	33	9'32357	0'60285	9'30065	9'97708	9'13770
4	9'31274	0'59078	9'28858	9'97584	9'14853	34	9'32395	0'60327	9'30107	9'97713	9'13732
5	9'31311	0'59119	9'28899	9'97589	9'14816	35	9'32433	0'60369	9'30149	9'97717	9'13694
6	9'31348	0'59161	9'28941	9'97593	9'14779	36	9'32471	0'60411	9'30191	9'97721	9'13656
7	9'31384	0'59202	9'28982	9'97597	9'14743	37	9'32509	0'60454	9'30234	9'97725	9'13618
8	9'31421	0'59243	9'29023	9'97602	9'14706	38	9'32547	0'60496	9'30276	9'97729	9'13580
9	9'31458	0'59284	9'29064	9'97606	9'14669	39	9'32585	0'60538	9'30318	9'97734	9'13542
10	9'31495	0'59326	9'29106	9'97610	9'14632	40	9'32623	0'60580	9'30360	9'97738	9'13504
11	9'31533	0'59367	9'29147	9'97615	9'14594	41	9'32661	0'60623	9'30403	9'97742	9'13466
12	9'31570	0'59409	9'29189	9'97619	9'14557	42	9'32699	0'60665	9'30445	9'97746	9'13428
13	9'31607	0'59450	9'29230	9'97623	9'14520	43	9'32737	0'60708	9'30488	9'97750	9'13390
14	9'31644	0'59491	9'29271	9'97628	9'14483	44	9'32776	0'60750	9'30530	9'97754	9'13351
15	9'31681	0'59533	9'29313	9'97632	9'14446	45	9'32814	0'60792	9'30572	9'97759	9'13313
16	9'31718	0'59574	9'29354	9'97636	9'14409	46	9'32852	0'60835	9'30615	9'97763	9'13275
17	9'31756	0'59616	9'29396	9'97640	9'14371	47	9'32891	0'60877	9'30657	9'97767	9'13236
18	9'31793	0'59658	9'29438	9'97645	9'14334	48	9'32929	0'60920	9'30700	9'97771	9'13198
19	9'31830	0'59699	9'29479	9'97649	9'14297	49	9'32967	0'60963	9'30743	9'97775	9'13160
20	9'31868	0'59741	9'29521	9'97653	9'14259	50	9'33006	0'61005	9'30785	9'97779	9'13121
21	9'31905	0'59782	9'29562	9'97657	9'14222	51	9'33044	0'61048	9'30828	9'97784	9'13083
22	9'31942	0'59824	9'29604	9'97662	9'14185	52	9'33083	0'61091	9'30871	9'97788	9'13044
23	9'31980	0'59866	9'29646	9'97666	9'14147	53	9'33122	0'61133	9'30913	9'97792	9'13005
24	9'32017	0'59908	9'29688	9'97670	9'14110	54	9'33160	0'61176	9'30956	9'97796	9'12967
25	9'32055	0'59950	9'29730	9'97674	9'14072	55	9'33199	0'61219	9'30999	9'97800	9'12928
26	9'32093	0'59991	9'29771	9'97679	9'14034	56	9'33238	0'61262	9'31042	9'97804	9'12889
27	9'32130	0'60033	9'29813	9'97683	9'13997	57	9'33276	0'61305	9'31085	9'97808	9'12851
28	9'32168	0'60075	9'29855	9'97687	9'13959	58	9'33315	0'61347	9'31127	9'97812	9'12812
29	9'32206	0'60117	9'29897	9'97691	9'13921	59	9'33354	0'61390	9'31170	9'97817	9'12773
30	9'32243	0'60159	9'29939	9'97696	9'13884	60	9'33393	0'61433	9'31213	9'97821	9'12734
	a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'

Declination 71°.

Diff. 0.00042.

"	"	"	"	"	"
1	1	11	8	21	15
2	1	12	8	22	15
3	2	13	9	23	16
4	3	14	10	24	17
5	4	15	11	25	18
6	4	16	11	26	18
7	5	17	12	27	19
8	6	18	13	28	20
9	6	19	13	29	20
10	7	20	14	30	21

N.P.D. Tables for Star Constants, 1880.

18° to 17°						sc=0.4875.						c'=1.30220.						d'=0.00000.						162° to 163°					
	a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'						
0	9.33393	0.61433	9.31213	9.97821	9.12734	30	9.34577	0.62739	9.32519	9.97942	9.11550																		
1	9.33432	0.61476	9.31256	9.97825	9.12695	31	9.34617	0.62783	9.32563	9.97946	9.11510																		
2	9.33471	0.61519	9.31299	9.97829	9.12656	32	9.34657	0.62827	9.32607	9.97950	9.11470																		
3	9.33510	0.61563	9.31343	9.97833	9.12617	33	9.34697	0.62871	9.32651	9.97954	9.11430																		
4	9.33549	0.61606	9.31386	9.97837	9.12578	34	9.34737	0.62915	9.32695	9.97958	9.11390																		
5	9.33588	0.61649	9.31429	9.97841	9.12539	35	9.34778	0.62959	9.32739	9.97962	9.11349																		
6	9.33627	0.61692	9.31472	9.97845	9.12500	36	9.34818	0.63004	9.32784	9.97966	9.11309																		
7	9.33666	0.61735	9.31515	9.97849	9.12461	37	9.34858	0.63048	9.32828	9.97970	9.11269																		
8	9.33705	0.61778	9.31558	9.97853	9.12422	38	9.34899	0.63092	9.32872	9.97974	9.11228																		
9	9.33744	0.61822	9.31602	9.97857	9.12383	39	9.34939	0.63137	9.32917	9.97978	9.11188																		
10	9.33784	0.61865	9.31645	9.97861	9.12343	40	9.34980	0.63181	9.32961	9.97982	9.11147																		
11	9.33823	0.61908	9.31688	9.97866	9.12304	41	9.35020	0.63226	9.33006	9.97986	9.11107																		
12	9.33862	0.61952	9.31732	9.97870	9.12265	42	9.35061	0.63270	9.33050	9.97989	9.11066																		
13	9.33901	0.61995	9.31775	9.97874	9.12226	43	9.35101	0.63315	9.33095	9.97993	9.11026																		
14	9.33941	0.62039	9.31819	9.97878	9.12186	44	9.35142	0.63359	9.33139	9.97997	9.10985																		
15	9.33980	0.62082	9.31862	9.97882	9.12147	45	9.35182	0.63404	9.33184	9.98001	9.10945																		
16	9.34020	0.62126	9.31906	9.97886	9.12107	46	9.35223	0.63448	9.33228	9.98005	9.10904																		
17	9.34059	0.62169	9.31949	9.97890	9.12068	47	9.35264	0.63493	9.33273	9.98009	9.10863																		
18	9.34099	0.62213	9.31993	9.97894	9.12028	48	9.35305	0.63538	9.33318	9.98013	9.10822																		
19	9.34139	0.62256	9.32036	9.97898	9.11988	49	9.35346	0.63582	9.33362	9.98017	9.10781																		
20	9.34178	0.62300	9.32080	9.97902	9.11949	50	9.35386	0.63627	9.33407	9.98021	9.10741																		
21	9.34218	0.62344	9.32124	9.97906	9.11909	51	9.35427	0.63672	9.33452	9.98025	9.10700																		
22	9.34258	0.62388	9.32168	9.97910	9.11869	52	9.35468	0.63717	9.33497	9.98029	9.10659																		
23	9.34297	0.62431	9.32211	9.97914	9.11830	53	9.35509	0.63762	9.33542	9.98032	9.10618																		
24	9.34337	0.62475	9.32255	9.97918	9.11790	54	9.35550	0.63807	9.33587	9.98036	9.10577																		
25	9.34377	0.62519	9.32299	9.97922	9.11750	55	9.35591	0.63852	9.33632	9.98040	9.10536																		
26	9.34417	0.62563	9.32343	9.97926	9.11710	56	9.35633	0.63897	9.33677	9.98044	9.10494																		
27	9.34457	0.62607	9.32387	9.97930	9.11670	57	9.35674	0.63942	9.33722	9.98048	9.10453																		
28	9.34497	0.62651	9.32431	9.97934	9.11630	58	9.35715	0.63987	9.33767	9.98052	9.10412																		
29	9.34537	0.62695	9.32475	9.97938	9.11590	59	9.35756	0.64032	9.33812	9.98056	9.10371																		
30	9.34577	0.62739	9.32519	9.97942	9.11550	60	9.35797	0.64077	9.33857	9.98060	9.10330																		
	a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'																		

Declination 72°.

Diff. 0.00044.

a	a	a	a	a	a
1	1	11	8	21	15
2	1	12	9	22	16
3	2	13	9	23	17
4	3	14	10	24	18
5	4	15	11	25	18
6	4	16	12	26	19
7	5	17	12	27	20
8	6	18	13	28	20
9	7	19	14	29	21
10	7	20	15	30	22

N.P.D. Tables for Star Constants, 1880.

17° to 16°						163° to 164°					
sc=0°48'5.						c'=1°30'220.					
d'=0°00'000.											
	a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'
0	9'35797	0°64077	9'33857	9'98060	9'10330	30	9'37057	0°65451	9'35231	9'98174	9'09070
1	9'35839	0°64122	9'33902	9'98063	9'10288	31	9'37099	0°65497	9'35277	9'98177	9'09028
2	9'35880	0°64168	9'33948	9'98067	9'10247	32	9'37142	0°65543	9'35323	9'98181	9'08985
3	9'35922	0°64213	9'33993	9'98071	9'10205	33	9'37185	0°65590	9'35370	9'98185	9'08942
4	9'35963	0°64258	9'34038	9'98075	9'10164	34	9'37228	0°65636	9'35416	9'98189	9'08899
5	9'36005	0°64304	9'34084	9'98079	9'10122	35	9'37271	0°65683	9'35463	9'98192	9'08856
6	9'36046	0°64349	9'34129	9'98083	9'10081	36	9'37314	0°65730	9'35510	9'98196	9'08813
7	9'36088	0°64394	9'34174	9'98087	9'10039	37	9'37356	0°65776	9'35556	9'98200	9'08771
8	9'36129	0°64440	9'34220	9'98090	9'09998	38	9'37399	0°65823	9'35603	9'98204	9'08728
9	9'36171	0°64485	9'34265	9'98094	9'09956	39	9'37443	0°65870	9'35650	9'98207	9'08684
10	9'36213	0°64531	9'34311	9'98098	9'09914	40	9'37486	0°65917	9'35697	9'98211	9'08641
11	9'36255	0°64576	9'34356	9'98102	9'09872	41	9'37529	0°65963	9'35743	9'98215	9'08598
12	9'36296	0°64622	9'34402	9'98106	9'09831	42	9'37572	0°66010	9'35790	9'98218	9'08555
13	9'36338	0°64668	9'34448	9'98110	9'09789	43	9'37615	0°66057	9'35837	9'98222	9'08512
14	9'36380	0°64714	9'34494	9'98113	9'09747	44	9'37658	0°66104	9'35884	9'98226	9'08469
15	9'36422	0°64759	9'34539	9'98117	9'09705	45	9'37702	0°66151	9'35931	9'98229	9'08425
16	9'36464	0°64805	9'34585	9'98121	9'09663	46	9'37745	0°66198	9'35978	9'98233	9'08382
17	9'36506	0°64851	9'34631	9'98125	9'09621	47	9'37789	0°66245	9'36025	9'98237	9'08338
18	9'36548	0°64897	9'34677	9'98129	9'09579	48	9'37832	0°66292	9'36072	9'98240	9'08295
19	9'36590	0°64943	9'34723	9'98132	9'09537	49	9'37875	0°66340	9'36120	9'98244	9'08252
20	9'36633	0°64989	9'34769	9'98136	9'09494	50	9'37919	0°66387	9'36167	9'98248	9'08208
21	9'36675	0°65035	9'34815	9'98140	9'09452	51	9'37963	0°66434	9'36214	9'98251	9'08164
22	9'36717	0°65081	9'34861	9'98144	9'09410	52	9'38006	0°66481	9'36261	9'98255	9'08121
23	9'36759	0°65127	9'34907	9'98147	9'09368	53	9'38050	0°66529	9'36309	9'98259	9'08077
24	9'36802	0°65173	9'34953	9'98151	9'09325	54	9'38094	0°66576	9'36356	9'98262	9'08033
25	9'36844	0°65219	9'34999	9'98155	9'09283	55	9'38138	0°66624	9'36404	9'98266	9'07989
26	9'36887	0°65265	9'35045	9'98159	9'09240	56	9'38181	0°66671	9'36451	9'98270	9'07946
27	9'36929	0°65312	9'35092	9'98162	9'09198	57	9'38225	0°66719	9'36499	9'98273	9'07902
28	9'36972	0°65358	9'35138	9'98166	9'09155	58	9'38269	0°66766	9'36546	9'98277	9'07858
29	9'37014	0°65404	9'35184	9'98170	9'09113	59	9'38313	0°66814	9'36594	9'98281	9'07814
30	9'37057	0°65451	9'35231	9'98174	9'09070	60	9'38357	0°66861	9'36641	9'98284	9'07770
	a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'

Declination 73°.

Diff. 0°00'046.

1	1	11	9	21	16
2	2	12	9	22	17
3	2	13	10	23	18
4	3	14	11	24	19
5	4	15	12	25	19
6	5	16	12	26	20
7	5	17	13	27	21
8	6	18	14	28	22
9	7	19	15	29	22
10	8	20	15	30	23

N.P.D. Tables for Star Constants, 1880.

16° to 15°						164° to 165°					
sc=0.4875						c=1.30220					
d=0.00000											
	a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'
0	9'38357	0.66861	9'36641	9'98284	9'07770	30	9'39701	0.68312	9'38091	9'98391	9'06426
1	9'38401	0.66909	9'36689	9'98288	9'07726	31	9'39747	0.68361	9'38141	9'98395	9'06380
2	9'38445	0.66957	9'36737	9'98291	9'07682	32	9'39792	0.68410	9'38190	9'98398	9'06335
3	9'38490	0.67005	9'36785	9'98295	9'07637	33	9'39838	0.68460	9'38240	9'98402	9'06289
4	9'38534	0.67052	9'36832	9'98299	9'07593	34	9'39884	0.68509	9'38289	9'98405	9'06243
5	9'38578	0.67100	9'36880	9'98302	9'07549	35	9'39930	0.68558	9'38338	9'98409	9'06197
6	9'38622	0.67148	9'36928	9'98306	9'07505	36	9'39975	0.68607	9'38387	9'98412	9'06152
7	9'38667	0.67196	9'36976	9'98309	9'07460	37	9'40021	0.68657	9'38437	9'98415	9'06106
8	9'38711	0.67244	9'37024	9'98313	9'07416	38	9'40067	0.68706	9'38486	9'98419	9'06060
9	9'38756	0.67292	9'37072	9'98317	9'07371	39	9'40113	0.68756	9'38536	9'98422	9'06014
10	9'38800	0.67340	9'37120	9'98320	9'07327	40	9'40159	0.68805	9'38585	9'98426	9'05968
11	9'38845	0.67389	9'37169	9'98324	9'07282	41	9'40205	0.68855	9'38635	9'98429	9'05922
12	9'38889	0.67437	9'37217	9'98327	9'07238	42	9'40251	0.68904	9'38684	9'98433	9'05876
13	9'38934	0.67485	9'37265	9'98331	9'07193	43	9'40298	0.68954	9'38734	9'98436	9'05829
14	9'38979	0.67533	9'37313	9'98334	9'07148	44	9'40344	0.69004	9'38784	9'98440	9'05783
15	9'39024	0.67582	9'37362	9'98338	9'07103	45	9'40390	0.69053	9'38833	9'98443	9'05737
16	9'39068	0.67630	9'37410	9'98342	9'07059	46	9'40437	0.69103	9'38883	9'98447	9'05690
17	9'39113	0.67678	9'37458	9'98345	9'07014	47	9'40483	0.69153	9'38933	9'98450	9'05644
18	9'39158	0.67727	9'37507	9'98349	9'06969	48	9'40530	0.69203	9'38983	9'98453	9'05597
19	9'39203	0.67775	9'37555	9'98352	9'06924	49	9'40576	0.69253	9'39033	9'98457	9'05551
20	9'39248	0.67824	9'37604	9'98356	9'06879	50	9'40623	0.69303	9'39083	9'98460	9'05504
21	9'39293	0.67873	9'37653	9'98359	9'06834	51	9'40669	0.69353	9'39133	9'98464	9'05458
22	9'39338	0.67921	9'37701	9'98363	9'06789	52	9'40716	0.69403	9'39183	9'98467	9'05411
23	9'39383	0.67970	9'37750	9'98366	9'06744	53	9'40763	0.69453	9'39233	9'98471	9'05364
24	9'39429	0.68019	9'37799	9'98370	9'06698	54	9'40809	0.69503	9'39283	9'98474	9'05318
25	9'39474	0.68067	9'37847	9'98373	9'06653	55	9'40856	0.69554	9'39334	9'98477	9'05271
26	9'39519	0.68116	9'37896	9'98377	9'06608	56	9'40903	0.69604	9'39384	9'98481	9'05224
27	9'39565	0.68165	9'37945	9'98381	9'06562	57	9'40950	0.69654	9'39434	9'98484	9'05177
28	9'39610	0.68214	9'37994	9'98384	9'06517	58	9'40997	0.69705	9'39485	9'98488	9'05130
29	9'39656	0.68263	9'38043	9'98388	9'06471	59	9'41044	0.69755	9'39535	9'98491	9'05083
30	9'39701	0.68312	9'38091	9'98391	9'06426	60	9'41091	0.69806	9'39586	9'98494	9'05036
	a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'

Declination 74°.

Diff. 0.00049.

1	1	11	9	21	17
2	2	12	10	22	18
3	3	13	11	23	19
4	4	14	12	24	20
5	5	15	13	25	21
6	6	16	14	26	22
7	7	17	15	27	23
8	8	18	16	28	24
9	9	19	17	29	25
10	10	20	18	30	26

N.P.D. Tables for Star Constants, 1880.

15° to 14°						sc=0.4875.						c'=1.30220.						d'=0.00000.						165° to 166°					
	a=b	c	d	a'=b'	sa'																								
0	9'41091	0'69806	9'39586	9'98494	9'05036	30	9'42531	0'71345	9'41125	9'98594	9'03596																		
1	9'41139	0'69856	9'39636	9'98498	9'04988	31	9'42580	0'71397	9'41177	9'98597	9'03547																		
2	9'41186	0'69907	9'39687	9'98501	9'04941	32	9'42629	0'71450	9'41230	9'98601	9'03498																		
3	9'41233	0'69958	9'39738	9'98505	9'04894	33	9'42678	0'71502	9'41282	9'98604	9'03449																		
4	9'41280	0'70008	9'39788	9'98508	9'04847	34	9'42727	0'71554	9'41334	9'98607	9'03400																		
5	9'41328	0'70059	9'39839	9'98511	9'04799	35	9'42776	0'71606	9'41386	9'98610	9'03351																		
6	9'41375	0'70110	9'39890	9'98515	9'04752	36	9'42825	0'71659	9'41439	9'98614	9'03302																		
7	9'41423	0'70161	9'39941	9'98518	9'04704	37	9'42874	0'71711	9'41491	9'98617	9'03253																		
8	9'41470	0'70212	9'39992	9'98521	9'04657	38	9'42924	0'71764	9'41544	9'98620	9'03203																		
9	9'41518	0'70263	9'40043	9'98525	9'04609	39	9'42973	0'71816	9'41596	9'98623	9'03154																		
10	9'41566	0'70314	9'40094	9'98528	9'04561	40	9'43022	0'71869	9'41649	9'98627	9'03105																		
11	9'41613	0'70365	9'40145	9'98531	9'04514	41	9'43072	0'71922	9'41702	9'98630	9'03055																		
12	9'41661	0'70416	9'40196	9'98535	9'04466	42	9'43121	0'71975	9'41755	9'98633	9'03006																		
13	9'41709	0'70467	9'40247	9'98538	9'04418	43	9'43171	0'72027	9'41807	9'98636	9'02956																		
14	9'41757	0'70518	9'40298	9'98541	9'04370	44	9'43221	0'72080	9'41860	9'98640	9'02906																		
15	9'41805	0'70570	9'40350	9'98545	9'04322	45	9'43270	0'72133	9'41913	9'98643	9'02857																		
16	9'41853	0'70621	9'40401	9'98548	9'04274	46	9'43320	0'72186	9'41966	9'98646	9'02807																		
17	9'41901	0'70672	9'40452	9'98551	9'04226	47	9'43370	0'72239	9'42019	9'98649	9'02757																		
18	9'41949	0'70724	9'40504	9'98555	9'04178	48	9'43420	0'72292	9'42072	9'98652	9'02707																		
19	9'41997	0'70775	9'40555	9'98558	9'04130	49	9'43470	0'72345	9'42125	9'98656	9'02657																		
20	9'42045	0'70827	9'40607	9'98561	9'04082	50	9'43520	0'72399	9'42179	9'98659	9'02607																		
21	9'42094	0'70878	9'40658	9'98565	9'04033	51	9'43570	0'72452	9'42232	9'98662	9'02557																		
22	9'42142	0'70930	9'40710	9'98568	9'03985	52	9'43620	0'72505	9'42285	9'98665	9'02507																		
23	9'42191	0'70982	9'40762	9'98571	9'03936	53	9'43670	0'72559	9'42339	9'98668	9'02457																		
24	9'42239	0'71033	9'40813	9'98574	9'03888	54	9'43721	0'72612	9'42392	9'98671	9'02406																		
25	9'42288	0'71085	9'40865	9'98578	9'03839	55	9'43771	0'72666	9'42446	9'98675	9'02356																		
26	9'42336	0'71137	9'40917	9'98581	9'03791	56	9'43821	0'72719	9'42499	9'98678	9'02306																		
27	9'42385	0'71189	9'40969	9'98584	9'03742	57	9'43872	0'72773	9'42553	9'98681	9'02255																		
28	9'42433	0'71241	9'41021	9'98588	9'03694	58	9'43922	0'72826	9'42606	9'98684	9'02205																		
29	9'42482	0'71293	9'41073	9'98591	9'03645	59	9'43973	0'72880	9'42660	9'98687	9'02154																		
30	9'42531	0'71345	9'41125	9'98594	9'03596	60	9'44023	0'72934	9'42714	9'98690	9'02104																		
	a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'																		

Declination 75°.

Diff. 0.00052.

<i>n</i>	<i>n</i>	<i>n</i>	<i>n</i>	<i>n</i>	<i>n</i>
1	1	11	10	21	18
2	2	12	10	22	19
3	3	13	11	23	20
4	3	14	12	24	21
5	4	15	13	25	22
6	5	16	14	26	23
7	6	17	15	27	23
8	7	18	16	28	24
9	8	19	16	29	25
10	9	20	17	30	26

N.P.D. Tables for Star Constants, 1880.

14° to 13° $\kappa=0.4875.$ $c'=1.30220.$ $d'=0.00000.$ 166° to 167°											
	a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'
0	9'44023	0'72934	9'42714	9'98690	9'02104	30	9'45572	0'74576	9'44356	9'98783	9'00555
1	9'44074	0'72988	9'42768	9'98694	9'02053	31	9'45625	0'74631	9'44411	9'98786	9'00502
2	9'44125	0'73042	9'42822	9'98697	9'02002	32	9'45678	0'74687	9'44467	9'98789	9'00449
3	9'44176	0'73096	9'42876	9'98700	9'01951	33	9'45731	0'74743	9'44523	9'98792	9'00396
4	9'44227	0'73150	9'42930	9'98703	9'01900	34	9'45783	0'74799	9'44579	9'98795	9'00344
5	9'44278	0'73204	9'42984	9'98706	9'01849	35	9'45836	0'74855	9'44635	9'98798	9'00291
6	9'44329	0'73258	9'43038	9'98709	9'01798	36	9'45889	0'74911	9'44691	9'98801	9'00238
7	9'44380	0'73312	9'43092	9'98712	9'01747	37	9'45942	0'74967	9'44747	9'98804	9'00185
8	9'44431	0'73366	9'43146	9'98715	9'01696	38	9'45996	0'75023	9'44803	9'98807	9'00131
9	9'44482	0'73421	9'43201	9'98719	9'01645	39	9'46049	0'75079	9'44859	9'98810	9'00078
10	9'44533	0'73475	9'43255	9'98722	9'01594	40	9'46102	0'75135	9'44915	9'98813	9'00025
11	9'44585	0'73529	9'43309	9'98725	9'01542	41	9'46155	0'75192	9'44972	9'98816	8'99972
12	9'44636	0'73584	9'43364	9'98728	9'01491	42	9'46209	0'75248	9'45028	9'98819	8'99918
13	9'44688	0'73639	9'43419	9'98731	9'01439	43	9'46262	0'75305	9'45085	9'98822	8'99865
14	9'44739	0'73693	9'43473	9'98734	9'01388	44	9'46316	0'75361	9'45141	9'98825	8'99811
15	9'44791	0'73748	9'43528	9'98737	9'01336	45	9'46369	0'75418	9'45198	9'98828	8'99758
16	9'44842	0'73803	9'43583	9'98740	9'01285	46	9'46423	0'75474	9'45254	9'98831	8'99704
17	9'44894	0'73857	9'43637	9'98743	9'01233	47	9'46477	0'75531	9'45311	9'98834	8'99650
18	9'44946	0'73912	9'43692	9'98746	9'01181	48	9'46531	0'75588	9'45368	9'98837	8'99596
19	9'44998	0'73967	9'43747	9'98750	9'01129	49	9'46585	0'75645	9'45425	9'98840	8'99542
20	9'45050	0'74022	9'43802	9'98753	9'01077	50	9'46639	0'75702	9'45482	9'98843	8'99488
21	9'45102	0'74077	9'43857	9'98756	9'01025	51	9'46693	0'75759	9'45539	9'98846	8'99434
22	9'45154	0'74132	9'43912	9'98759	9'00973	52	9'46747	0'75816	9'45596	9'98849	8'99380
23	9'45206	0'74188	9'43968	9'98762	9'00921	53	9'46801	0'75873	9'45653	9'98852	8'99326
24	9'45258	0'74243	9'44023	9'98765	9'00869	54	9'46855	0'75930	9'45710	9'98855	8'99272
25	9'45310	0'74298	9'44078	9'98768	9'00817	55	9'46910	0'75987	9'45767	9'98858	8'99217
26	9'45363	0'74354	9'44134	9'98771	9'00764	56	9'46964	0'76045	9'45825	9'98861	8'99163
27	9'45415	0'74409	9'44189	9'98774	9'00712	57	9'47018	0'76102	9'45882	9'98864	8'99109
28	9'45467	0'74464	9'44244	9'98777	9'00660	58	9'47073	0'76159	9'45939	9'98867	8'99054
29	9'45520	0'74520	9'44300	9'98780	9'00607	59	9'47128	0'76217	9'45997	9'98869	8'98999
30	9'45572	0'74576	9'44356	9'98783	9'00555	60	9'47182	0'76275	9'46055	9'98872	8'98945
	a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'

Declination 76°.

Diff. 0.00056.

0	1	11	10	21	20
1	2	12	11	22	21
2	3	13	12	23	21
3	4	14	13	24	22
4	5	15	14	25	23
5	6	16	15	26	24
6	7	17	16	27	25
7	8	18	17	28	26
8	9	19	18	29	27
9	10	20	19	30	28

N.P.D. Tables for Star Constants, 1880.

18° to 12° $\sec=0.4875.$ $c'=1.30220.$ $d'=0.00000.$ 167° to 168°											
	a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'
0	9'47182	0'76275	9'46055	9'98872	8'98945	30	9'48857	0'78035	9'47815	9'98958	8'97270
1	9'47237	0'76132	9'46112	9'98875	8'98890	31	9'48914	0'78095	9'47875	9'98961	8'97213
2	9'47292	0'76390	9'46170	9'98878	8'98835	32	9'48971	0'78155	9'47935	9'98964	8'97156
3	9'47347	0'76448	9'46228	9'98881	8'98780	33	9'49029	0'78215	9'47995	9'98967	8'97098
4	9'47402	0'76506	9'46286	9'98884	8'98725	34	9'49086	0'78275	9'48055	9'98969	8'97041
5	9'47457	0'76564	9'46344	9'98887	8'98670	35	9'49143	0'78335	9'48115	9'98972	8'96984
6	9'47512	0'76622	9'46402	9'98890	8'98615	36	9'49201	0'78396	9'48176	9'98975	8'96926
7	9'47567	0'76680	9'46460	9'98893	8'98560	37	9'49258	0'78456	9'48236	9'98978	8'96869
8	9'47622	0'76738	9'46518	9'98896	8'98505	38	9'49316	0'78516	9'48296	9'98980	8'96811
9	9'47678	0'76796	9'46576	9'98898	8'98449	39	9'49373	0'78577	9'48357	9'98983	8'96754
10	9'47733	0'76854	9'46634	9'98901	8'98394	40	9'49431	0'78637	9'48417	9'98986	8'96696
11	9'47789	0'76913	9'46693	9'98904	8'98338	41	9'49489	0'78698	9'48478	9'98989	8'96638
12	9'47844	0'76971	9'46751	9'98907	8'98283	42	9'49547	0'78758	9'48538	9'98991	8'96580
13	9'47900	0'77030	9'46810	9'98910	8'98227	43	9'49605	0'78819	9'48599	9'98994	8'96522
14	9'47955	0'77088	9'46868	9'98913	8'98172	44	9'49663	0'78880	9'48660	9'98997	8'96464
15	9'48011	0'77147	9'46927	9'98916	8'98116	45	9'49721	0'78941	9'48721	9'99000	8'96406
16	9'48067	0'77206	9'46986	9'98919	8'98060	46	9'49779	0'79002	9'48782	9'99002	8'96348
17	9'48123	0'77264	9'47044	9'98921	8'98004	47	9'49838	0'79063	9'48843	9'99005	8'96289
18	9'48179	0'77323	9'47103	9'98924	8'97948	48	9'49896	0'79124	9'48904	9'99008	8'96231
19	9'48235	0'77382	9'47162	9'98927	8'97892	49	9'49954	0'79185	9'48965	9'99011	8'96173
20	9'48291	0'77441	9'47221	9'98930	8'97836	50	9'50013	0'79246	9'49026	9'99013	8'96114
21	9'48348	0'77500	9'47280	9'98933	8'97779	51	9'50072	0'79308	9'49088	9'99016	8'96055
22	9'48404	0'77560	9'47340	9'98936	8'97723	52	9'50130	0'79369	9'49149	9'99019	8'95997
23	9'48460	0'77619	9'47399	9'98938	8'97667	53	9'50189	0'79431	9'49211	9'99022	8'95938
24	9'48517	0'77678	9'47458	9'98941	8'97610	54	9'50248	0'79492	9'49272	9'99024	8'95879
25	9'48573	0'77737	9'47517	9'98944	8'97554	55	9'50307	0'79554	9'49334	9'99027	8'95820
26	9'48630	0'77797	9'47577	9'98947	8'97497	56	9'50366	0'79616	9'49396	9'99030	8'95761
27	9'48687	0'77856	9'47636	9'98950	8'97440	57	9'50425	0'79678	9'49458	9'99032	8'95702
28	9'48744	0'77916	9'47696	9'98953	8'97383	58	9'50484	0'79739	9'49519	9'99035	8'95643
29	9'48800	0'77976	9'47756	9'98955	8'97327	59	9'50544	0'79801	9'49581	9'99038	8'95583
30	9'48857	0'78035	9'47815	9'98958	8'97270	60	9'50603	0'79864	9'49644	9'99040	8'95524
	a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'

Declination 77°.

Diff. 0.00060.

1		11		21	
1	1	11	11	21	21
2	2	12	12	22	22
3	3	13	13	23	23
4	4	14	14	24	24
5	5	15	15	25	25
6	6	16	16	26	26
7	7	17	17	27	27
8	8	18	18	28	28
9	9	19	19	29	29
10	10	20	20	30	30

N.P.D. Tables for Star Constants, 1880.

12° to 11° $\sec=0.4875$ $c'=1.30220$ $d'=0.00000$ 168° to 169°											
	a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'
0	9.50603	0.79864	9.49644	9.99040	8.95524	30	9.52425	0.81765	9.51545	9.99119	8.93702
1	9.50663	0.79926	9.49706	9.99043	8.95464	31	9.52488	0.81829	9.51609	9.99122	8.93639
2	9.50722	0.79988	9.49768	9.99046	8.95405	32	9.52550	0.81894	9.51674	9.99124	8.93577
3	9.50782	0.80050	9.49830	9.99048	8.95345	33	9.52612	0.81959	9.51739	9.99127	8.93515
4	9.50842	0.80113	9.49893	9.99051	8.95285	34	9.52675	0.82024	9.51804	9.99130	8.93452
5	9.50901	0.80175	9.49955	9.99054	8.95226	35	9.52737	0.82089	9.51869	9.99132	8.93390
6	9.50961	0.80238	9.50018	9.99056	8.95166	36	9.52800	0.82154	9.51934	9.99135	8.93327
7	9.51021	0.80300	9.50080	9.99059	8.95106	37	9.52862	0.82220	9.52000	9.99137	8.93265
8	9.51081	0.80363	9.50143	9.99062	8.95046	38	9.52925	0.82285	9.52065	9.99140	8.93202
9	9.51141	0.80426	9.50206	9.99064	8.94986	39	9.52988	0.82350	9.52130	9.99142	8.93139
10	9.51202	0.80489	9.50269	9.99067	8.94925	40	9.53051	0.82416	9.52196	9.99145	8.93076
11	9.51262	0.80552	9.50332	9.99070	8.94865	41	9.53114	0.82481	9.52261	9.99147	8.93013
12	9.51323	0.80615	9.50395	9.99072	8.94804	42	9.53177	0.82547	9.52327	9.99150	8.92950
13	9.51383	0.80678	9.50458	9.99075	8.94744	43	9.53241	0.82613	9.52393	9.99152	8.92886
14	9.51444	0.80741	9.50521	9.99078	8.94683	44	9.53304	0.82679	9.52459	9.99155	8.92823
15	9.51504	0.80805	9.50585	9.99080	8.94623	45	9.53367	0.82745	9.52525	9.99157	8.92760
16	9.51565	0.80868	9.50648	9.99083	8.94562	46	9.53431	0.82811	9.52591	9.99160	8.92696
17	9.51626	0.80932	9.50712	9.99086	8.94501	47	9.53495	0.82877	9.52657	9.99162	8.92632
18	9.51687	0.80995	9.50775	9.99088	8.94440	48	9.53558	0.82943	9.52723	9.99165	8.92569
19	9.51748	0.81059	9.50839	9.99091	8.94379	49	9.53622	0.83010	9.52790	9.99167	8.92505
20	9.51809	0.81122	9.50902	9.99093	8.94318	50	9.53686	0.83076	9.52856	9.99170	8.92441
21	9.51870	0.81186	9.50966	9.99096	8.94257	51	9.53750	0.83143	9.52923	9.99172	8.92377
22	9.51932	0.81250	9.51030	9.99099	8.94195	52	9.53814	0.83209	9.52989	9.99175	8.92313
23	9.51993	0.81314	9.51094	9.99101	8.94134	53	9.53879	0.83276	9.53056	9.99177	8.92248
24	9.52055	0.81378	9.51158	9.99104	8.94072	54	9.53943	0.83343	9.53123	9.99180	8.92184
25	9.52116	0.81443	9.51223	9.99106	8.94011	55	9.54007	0.83410	9.53190	9.99182	8.92120
26	9.52178	0.81507	9.51287	9.99109	8.93949	56	9.54072	0.83477	9.53257	9.99185	8.92055
27	9.52240	0.81571	9.51351	9.99112	8.93887	57	9.54137	0.83544	9.53324	9.99187	8.91990
28	9.52301	0.81636	9.51416	9.99114	8.93826	58	9.54201	0.83611	9.53391	9.99190	8.91926
29	9.52363	0.81700	9.51480	9.99117	8.93764	59	9.54266	0.83678	9.53458	9.99192	8.91861
30	9.52425	0.81765	9.51545	9.99119	8.93702	60	9.54331	0.83746	9.53526	9.99195	8.91796
	a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'

Declination 78°.

Diff. 0.00065.

1	1	11	12	21	23
2	2	12	13	22	24
3	3	13	14	23	25
4	4	14	15	24	26
5	5	15	16	25	27
6	6	16	17	26	28
7	7	17	18	27	29
8	8	18	19	28	30
9	9	19	20	29	31
10	10	20	21	30	32

N.P.D. Tables for Star Constants, 1880.

11° to 10°						169° to 170°					
sc=0.4875.						d=0.00000.					
c=1.30220.						a=b					
a=b						c					
d						a'=b'					
a'=b'						sa'					
sa'						a=b					
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d						a'=b'					
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sa'						a=b					
a=b						c					
d						a'=b'					
a'=b'						sa'					
sa'											

N.P.D. Tables for Star Constants, 1880.

10° to 9°						170° to 171°					
sc=0.4875.						c1=1.30220.					
d1=0.00000											
	a=b	c	d	a1=b1	sa1		a=b	c	d	a1=b1	sa1
0	9.58424	0.87979	9.57759	9.99335	8.87703	30	9.60630	0.90250	9.60030	9.99400	8.85497
1	9.58496	0.88053	9.57833	9.99337	8.87631	31	9.60706	0.90328	9.60108	9.99402	8.85421
2	9.58568	0.88127	9.57907	9.99340	8.87559	32	9.60781	0.90406	9.60186	9.99404	8.85346
3	9.58639	0.88201	9.57981	9.99342	8.87488	33	9.60857	0.90484	9.60264	9.99407	8.85270
4	9.58712	0.88276	9.58056	9.99344	8.87415	34	9.60933	0.90562	9.60342	9.99409	8.85194
5	9.58784	0.88350	9.58130	9.99346	8.87343	35	9.61009	0.90640	9.60420	9.99411	8.85118
6	9.58856	0.88425	9.58205	9.99348	8.87271	36	9.61085	0.90718	9.60498	9.99413	8.85042
7	9.58929	0.88499	9.58279	9.99351	8.87198	37	9.61162	0.90797	9.60577	9.99415	8.84965
8	9.59001	0.88574	9.58354	9.99353	8.87126	38	9.61238	0.90875	9.60655	9.99417	8.84889
9	9.59074	0.88649	9.58429	9.99355	8.87053	39	9.61315	0.90954	9.60734	9.99419	8.84812
10	9.59147	0.88724	9.58504	9.99357	8.86980	40	9.61392	0.91033	9.60813	9.99421	8.84735
11	9.59220	0.88799	9.58579	9.99359	8.86907	41	9.61469	0.91112	9.60892	9.99423	8.84658
12	9.59293	0.88874	9.58654	9.99362	8.86834	42	9.61546	0.91191	9.60971	9.99425	8.84581
13	9.59366	0.88950	9.58730	9.99364	8.86761	43	9.61623	0.91270	9.61050	9.99427	8.84504
14	9.59439	0.89025	9.58805	9.99366	8.86688	44	9.61700	0.91350	9.61130	9.99429	8.84427
15	9.59513	0.89101	9.58881	9.99368	8.86614	45	9.61778	0.91429	9.61209	9.99432	8.84349
16	9.59586	0.89176	9.58956	9.99370	8.86541	46	9.61856	0.91509	9.61289	9.99434	8.84271
17	9.59660	0.89252	9.59032	9.99372	8.86467	47	9.61933	0.91589	9.61369	9.99436	8.84194
18	9.59734	0.89328	9.59108	9.99375	8.86393	48	9.62011	0.91669	9.61449	9.99438	8.84116
19	9.59808	0.89405	9.59185	9.99377	8.86319	49	9.62089	0.91749	9.61529	9.99440	8.84038
20	9.59882	0.89481	9.59261	9.99379	8.86245	50	9.62168	0.91829	9.61609	9.99442	8.83959
21	9.59956	0.89557	9.59337	9.99381	8.86171	51	9.62246	0.91910	9.61690	9.99444	8.83881
22	9.60030	0.89634	9.59414	9.99383	8.86097	52	9.62324	0.91990	9.61770	9.99446	8.83803
23	9.60105	0.89710	9.59490	9.99385	8.86022	53	9.62403	0.92071	9.61851	9.99448	8.83724
24	9.60180	0.89787	9.59567	9.99388	8.85947	54	9.62482	0.92152	9.61932	9.99450	8.83645
25	9.60254	0.89864	9.59644	9.99390	8.85873	55	9.62561	0.92233	9.62013	9.99452	8.83566
26	9.60329	0.89941	9.59721	9.99392	8.85798	56	9.62640	0.92314	9.62094	9.99454	8.83487
27	9.60404	0.90018	9.59798	9.99394	8.85723	57	9.62719	0.92395	9.62175	9.99456	8.83408
28	9.60479	0.90095	9.59875	9.99396	8.85648	58	9.62799	0.92477	9.62257	9.99458	8.83328
29	9.60555	0.90173	9.59953	9.99398	8.85572	59	9.62878	0.92558	9.62338	9.99460	8.83249
30	9.60630	0.90250	9.60030	9.99400	8.85497	60	9.62958	0.92640	9.62420	9.99462	8.83169
	a=b	c	d	a1=b1	sa1		a=b	c	d	a1=b1	sa1

Declination 80°.

Diff. 0.00074.

Diff. 0.00078.

1	1	11	14	21	26	1	1	11	14	21	27
2	2	12	15	22	27	2	3	12	16	22	29
3	4	13	16	23	28	3	4	13	17	23	30
4	5	14	17	24	30	4	5	14	18	24	31
5	6	15	19	25	31	5	7	15	20	25	33
6	7	16	20	26	32	6	8	16	21	26	34
7	9	17	21	27	33	7	9	17	22	27	35
8	10	18	22	28	35	8	10	18	23	28	36
9	11	19	23	29	36	9	12	19	25	29	38
10	12	20	25	30	37	10	13	20	26	30	39

N.P.D. Tables for Star Constants, 1880.

9° to 8°		sc=0°48'75.		c=1°30'22.0.		d=0°00'00.0.		171° to 172°			
	a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'
0	9°6295	0°92640	9°62420	9°99462	8°83169	30	9°65421	0°95161	9°64941	9°99520	8°80706
1	9°6303	0°92722	9°62502	9°99464	8°83089	31	9°65505	0°95248	9°65028	9°99522	8°80622
2	9°63118	0°92804	9°62584	9°99466	8°83009	32	9°65590	0°95334	9°65114	9°99524	8°80537
3	9°63198	0°92886	9°62666	9°99468	8°82929	33	9°65675	0°95421	9°65201	9°99526	8°80452
4	9°63278	0°92968	9°62748	9°99470	8°82849	34	9°65760	0°95508	9°65288	9°99528	8°80367
5	9°63358	0°93050	9°62830	9°99472	8°82769	35	9°65846	0°95595	9°65375	9°99530	8°80281
6	9°63439	0°93133	9°62913	9°99474	8°82688	36	9°65931	0°95683	9°65463	9°99532	8°80196
7	9°63520	0°93216	9°62996	9°99476	8°82607	37	9°66017	0°95770	9°65550	9°99533	8°80110
8	9°63601	0°93299	9°63079	9°99478	8°82526	38	9°66102	0°95858	9°65638	9°99535	8°80025
9	9°63682	0°93382	9°63162	9°99480	8°82445	39	9°66188	0°95946	9°65726	9°99537	8°79939
10	9°63763	0°93465	9°63245	9°99482	8°82364	40	9°66275	0°96034	9°65814	9°99539	8°79852
11	9°63844	0°93548	9°63328	9°99484	8°82283	41	9°66361	0°96122	9°65902	9°99541	8°79766
12	9°63926	0°93632	9°63412	9°99486	8°82201	42	9°66447	0°96210	9°66090	9°99543	8°79680
13	9°64008	0°93715	9°63495	9°99488	8°82119	43	9°66534	0°96299	9°66079	9°99545	8°79593
14	9°64089	0°93799	9°63579	9°99490	8°82038	44	9°66621	0°96387	9°66167	9°99546	8°79506
15	9°64171	0°93883	9°63663	9°99492	8°81956	45	9°66708	0°96476	9°66256	9°99548	8°79419
16	9°64254	0°93967	9°63747	9°99494	8°81873	46	9°66795	0°96565	9°66345	9°99550	8°79332
17	9°64336	0°94051	9°63831	9°99495	8°81791	47	9°66883	0°96655	9°66435	9°99552	8°79244
18	9°64418	0°94136	9°63916	9°99497	8°81709	48	9°66970	0°96744	9°66524	9°99554	8°79157
19	9°64501	0°94220	9°64000	9°99499	8°81626	49	9°67058	0°96834	9°66614	9°99556	8°79069
20	9°64584	0°94305	9°64085	9°99501	8°81543	50	9°67146	0°96923	9°66703	9°99557	8°78981
21	9°64667	0°94390	9°64170	9°99503	8°81460	51	9°67234	0°97013	9°66793	9°99559	8°78893
22	9°64750	0°94475	9°64255	9°99505	8°81377	52	9°67322	0°97103	9°66883	9°99561	8°78805
23	9°64833	0°94560	9°64340	9°99507	8°81294	53	9°67411	0°97194	9°66974	9°99563	8°78716
24	9°64917	0°94646	9°64426	9°99509	8°81210	54	9°67500	0°97284	9°67064	9°99565	8°78627
25	9°65000	0°94731	9°64511	9°99511	8°81127	55	9°67588	0°97375	9°67155	9°99566	8°78539
26	9°65084	0°94817	9°64597	9°99513	8°81043	56	9°67677	0°97466	9°67246	9°99568	8°78450
27	9°65168	0°94903	9°64683	9°99515	8°80959	57	9°67767	0°97557	9°67337	9°99570	8°78360
28	9°65252	0°94989	9°64769	9°99517	8°80875	58	9°67856	0°97648	9°67428	9°99572	8°78271
29	9°65336	0°95075	9°64855	9°99518	8°80791	59	9°67946	0°97739	9°67519	9°99574	8°78181
30	9°65421	0°95161	9°64941	9°99520	8°80706	60	9°68035	0°97831	9°67611	9°99575	8°78092
	a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'

Declination 81°.

Diff. 0.00082.

Diff. 0.00087.

1	1	11	15	21	29	1	1	11	16	21	30
2	3	12	16	22	30	2	3	12	17	22	32
3	4	13	18	23	31	3	4	13	19	23	33
4	5	14	19	24	33	4	6	14	20	24	35
5	7	15	21	25	34	5	7	15	22	25	36
6	8	16	22	26	36	6	9	16	23	26	38
7	10	17	23	27	37	7	10	17	25	27	39
8	11	18	25	28	38	8	12	18	26	28	41
9	12	19	26	29	40	9	13	19	28	29	42
10	14	20	27	30	41	10	15	20	29	30	44

N.P.D. Tables for Star Constants, 1880.

8° to 7°						172° to 173°					
sc=0.4875.						c'=1.30220.					
d'=0.00090.											
	a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'
0	9.68035	0.97831	9.67611	9.99575	8.78092	30	9.70821	1.00668	9.70448	9.99627	8.75306
1	9.68125	0.97923	9.67703	9.99577	8.78002	31	9.70917	1.00766	9.70546	9.99629	8.75210
2	9.68216	0.98014	9.67794	9.99579	8.77911	32	9.71014	1.00864	9.70644	9.99630	8.75113
3	9.68306	0.98107	9.67887	9.99581	8.77821	33	9.71110	1.00962	9.70742	9.99632	8.75017
4	9.68397	0.98199	9.67979	9.99582	8.77730	34	9.71207	1.01060	9.70840	9.99633	8.74920
5	9.68487	0.98291	9.68071	9.99584	8.77640	35	9.71304	1.01159	9.70939	9.99635	8.74823
6	9.68578	0.98384	9.68164	9.99586	8.77549	36	9.71401	1.01258	9.71038	9.99637	8.74726
7	9.68669	0.98477	9.68257	9.99588	8.77458	37	9.71498	1.01357	9.71137	9.99638	8.74629
8	9.68761	0.98570	9.68350	9.99589	8.77366	38	9.71596	1.01456	9.71236	9.99640	8.74531
9	9.68852	0.98663	9.68443	9.99591	8.77275	39	9.71694	1.01555	9.71335	9.99642	8.74433
10	9.68944	0.98757	9.68537	9.99593	8.77183	40	9.71792	1.01655	9.71435	9.99643	8.74335
11	9.69036	0.98850	9.68630	9.99595	8.77091	41	9.71890	1.01755	9.71535	9.99645	8.74237
12	9.69128	0.98944	9.68724	9.99596	8.76999	42	9.71989	1.01855	9.71635	9.99647	8.74138
13	9.69220	0.99038	9.68818	9.99598	8.76907	43	9.72087	1.01955	9.71735	9.99648	8.74040
14	9.69313	0.99133	9.68913	9.99600	8.76814	44	9.72186	1.02056	9.71836	9.99650	8.73941
15	9.69406	0.99227	9.69007	9.99601	8.76721	45	9.72285	1.02157	9.71937	9.99651	8.73842
16	9.69499	0.99322	9.69102	9.99603	8.76628	46	9.72385	1.02258	9.72038	9.99653	8.73742
17	9.69592	0.99417	9.69197	9.99605	8.76535	47	9.72484	1.02359	9.72139	9.99655	8.73643
18	9.69685	0.99512	9.69292	9.99607	8.76442	48	9.72584	1.02461	9.72241	9.99656	8.73543
19	9.69779	0.99607	9.69387	9.99608	8.76348	49	9.72684	1.02562	9.72342	9.99658	8.73443
20	9.69872	0.99702	9.69482	9.99610	8.76255	50	9.72785	1.02664	9.72444	9.99659	8.73342
21	9.69966	0.99798	9.69578	9.99612	8.76161	51	9.72885	1.02766	9.72546	9.99661	8.73242
22	9.70060	0.99894	9.69674	9.99613	8.76067	52	9.72986	1.02869	9.72649	9.99663	8.73141
23	9.70155	0.99990	9.69770	9.99615	8.75972	53	9.73087	1.02971	9.72751	9.99664	8.73040
24	9.70249	1.00086	9.69866	9.99617	8.75878	54	9.73189	1.03074	9.72854	9.99666	8.72938
25	9.70344	1.00183	9.69963	9.99618	8.75783	55	9.73290	1.03177	9.72957	9.99667	8.72837
26	9.70439	1.00279	9.70059	9.99620	8.75688	56	9.73392	1.03281	9.73061	9.99669	8.72735
27	9.70534	1.00376	9.70156	9.99622	8.75593	57	9.73494	1.03384	9.73164	9.99670	8.72633
28	9.70630	1.00473	9.70253	9.99624	8.75497	58	9.73596	1.03488	9.73268	9.99672	8.72531
29	9.70725	1.00571	9.70351	9.99625	8.75402	59	9.73699	1.03592	9.73372	9.99674	8.72428
30	9.70821	1.00668	9.70448	9.99627	8.75306	60	9.73802	1.03697	9.73477	9.99675	8.72325
	a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'

Declination 82°.

Diff. 0.00093.

Diff. 0.00098.

1	2	11	17	21	33	1	2	11	18	21	34
2	3	12	19	22	34	2	3	12	20	22	36
3	5	13	20	23	36	3	5	13	21	23	38
4	6	14	22	24	37	4	7	14	23	24	39
5	8	15	23	25	39	5	8	15	25	25	41
6	9	16	25	26	40	6	10	16	26	26	43
7	11	17	26	27	42	7	11	17	28	27	44
8	12	18	28	28	43	8	13	18	29	28	46
9	14	19	29	29	45	9	15	19	31	29	47
10	16	20	31	30	47	10	16	20	33	30	49

N.P.D. Tables for Star Constants, 1880.

7° to 6°					c'=1°30'220					d'=0°00'000					173° to 174°				
sc=0°48'75																			
	a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'		
0	9'73802	1'03697	9'73477	9'99675	8'72325	30	9'77005	1'06945	9'76725	9'99720	8'69122								
1	9'73905	1'03801	9'73581	9'99677	8'72222	31	9'77116	1'07058	9'76838	9'99721	8'69011								
2	9'74008	1'03906	9'73686	9'99678	8'72119	32	9'77227	1'07170	9'76950	9'99723	8'68900								
3	9'74111	1'04011	9'73791	9'99680	8'72016	33	9'77339	1'07283	9'77063	9'99724	8'68788								
4	9'74215	1'04116	9'73896	9'99681	8'71912	34	9'77451	1'07397	9'77177	9'99726	8'68676								
5	9'74319	1'04222	9'74002	9'99683	8'71808	35	9'77563	1'07510	9'77290	9'99727	8'68564								
6	9'74423	1'04328	9'74108	9'99684	8'71704	36	9'77676	1'07624	9'77404	9'99728	8'68451								
7	9'74528	1'04434	9'74214	9'99686	8'71599	37	9'77788	1'07738	9'77518	9'99730	8'68339								
8	9'74633	1'04540	9'74320	9'99687	8'71494	38	9'77901	1'07853	9'77633	9'99731	8'68226								
9	9'74738	1'04647	9'74427	9'99689	8'71389	39	9'78015	1'07968	9'77748	9'99733	8'68112								
10	9'74843	1'04753	9'74533	9'99690	8'71284	40	9'78129	1'08083	9'77863	9'99734	8'67998								
11	9'74949	1'04860	9'74640	9'99692	8'71178	41	9'78242	1'08198	9'77978	9'99736	8'67885								
12	9'75054	1'04968	9'74748	9'99693	8'71073	42	9'78357	1'08314	9'78094	9'99737	8'67770								
13	9'75160	1'05075	9'74855	9'99695	8'70967	43	9'78471	1'08430	9'78210	9'99738	8'67656								
14	9'75267	1'05183	9'74963	9'99696	8'70860	44	9'78586	1'08546	9'78326	9'99740	8'67541								
15	9'75373	1'05291	9'75071	9'99698	8'70754	45	9'78701	1'08663	9'78443	9'99741	8'67426								
16	9'75480	1'05400	9'75180	9'99699	8'70647	46	9'78817	1'08779	9'78559	9'99742	8'67310								
17	9'75587	1'05508	9'75288	9'99701	8'70540	47	9'78933	1'08897	9'78677	9'99744	8'67194								
18	9'75695	1'05617	9'75397	9'99702	8'70432	48	9'79049	1'09014	9'78794	9'99745	8'67078								
19	9'75802	1'05726	9'75506	9'99704	8'70325	49	9'79165	1'09132	9'78912	9'99747	8'66962								
20	9'75910	1'05836	9'75616	9'99705	8'70217	50	9'79282	1'09250	9'79030	9'99748	8'66845								
21	9'76019	1'05945	9'75725	9'99707	8'70108	51	9'79399	1'09369	9'79149	9'99749	8'66728								
22	9'76127	1'06055	9'75835	9'99708	8'70000	52	9'79517	1'09487	9'79267	9'99751	8'66610								
23	9'76236	1'06166	9'75946	9'99710	8'69891	53	9'79634	1'09606	9'79386	9'99752	8'66493								
24	9'76345	1'06276	9'76056	9'99711	8'69782	54	9'79752	1'09726	9'79506	9'99753	8'66375								
25	9'76454	1'06387	9'76167	9'99713	8'69673	55	9'79871	1'09845	9'79625	9'99755	8'66256								
26	9'76564	1'06498	9'76278	9'99714	8'69563	56	9'79989	1'09966	9'79746	9'99756	8'66138								
27	9'76674	1'06609	9'76389	9'99716	8'69453	57	9'80108	1'10086	9'79866	9'99757	8'66019								
28	9'76784	1'06721	9'76501	9'99717	8'69343	58	9'80228	1'10207	9'79987	9'99759	8'65899								
29	9'76894	1'06833	9'76613	9'99718	8'69233	59	9'80348	1'10328	9'80108	9'99760	8'65779								
30	9'77005	1'06945	9'76725	9'99720	8'69122	60	9'80468	1'10449	9'80229	9'99761	8'65659								
	a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'		

Declination 83°.

Diff. 0°00'104.

Diff. 0°00'113.

1	2	11	19	21	36	1	2	11	21	21	40
2	3	12	21	22	38	2	4	12	23	22	41
3	5	13	23	23	40	3	6	13	24	23	43
4	7	14	24	24	42	4	8	14	26	24	45
5	9	15	26	25	43	5	9	15	28	25	47
6	10	16	28	26	45	6	11	16	30	26	49
7	12	17	29	27	47	7	13	17	32	27	51
8	14	18	31	28	49	8	15	18	34	28	53
9	16	19	33	29	50	9	17	19	36	29	55
10	17	20	35	30	52	10	19	20	38	30	57

N.P.D. Tables for Star Constants, 1880.

6° to 5°		sc=0°48'55.		cl=1°30'220		d=0°00'000.		174° to 175°			
	a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'
0	9°8'0468	1°10'449	9°8'0229	9°9'9761	8°6'5659	30	9°8'4234	1°14'253	9°8'4033	9°9'9800	8°6'1893
1	9°8'0588	1°10'571	9°8'0351	9°9'9763	8°6'5539	31	9°8'4365	1°14'386	9°8'4166	9°9'9801	8°6'1762
2	9°8'0709	1°10'693	9°8'0473	9°9'9764	8°6'5418	32	9°8'4497	1°14'519	9°8'4299	9°9'9802	8°6'1630
3	9°8'0830	1°10'815	9°8'0595	9°9'9765	8°6'5297	33	9°8'4629	1°14'652	9°8'4432	9°9'9803	8°6'1498
4	9°8'0951	1°10'938	9°8'0718	9°9'9767	8°6'5176	34	9°8'4762	1°14'786	9°8'4566	9°9'9804	8°6'1365
5	9°8'1073	1°11'061	9°8'0841	9°9'9768	8°6'5054	35	9°8'4895	1°14'920	9°8'4700	9°9'9806	8°6'1232
6	9°8'1195	1°11'184	9°8'0964	9°9'9769	8°6'4932	36	9°8'5028	1°15'055	9°8'4835	9°9'9807	8°6'1099
7	9°8'1317	1°11'308	9°8'1088	9°9'9771	8°6'4810	37	9°8'5162	1°15'190	9°8'4970	9°9'9808	8°6'0965
8	9°8'1440	1°11'432	9°8'1212	9°9'9772	8°6'4687	38	9°8'5296	1°15'326	9°8'5106	9°9'9809	8°6'0831
9	9°8'1563	1°11'556	9°8'1336	9°9'9773	8°6'4564	39	9°8'5431	1°15'461	9°8'5241	9°9'9810	8°6'0696
10	9°8'1687	1°11'681	9°8'1461	9°9'9775	8°6'4440	40	9°8'5566	1°15'598	9°8'5378	9°9'9812	8°6'0561
11	9°8'1810	1°11'806	9°8'1586	9°9'9776	8°6'4317	41	9°8'5702	1°15'734	9°8'5514	9°9'9813	8°6'0425
12	9°8'1935	1°11'932	9°8'1712	9°9'9777	8°6'4192	42	9°8'5838	1°15'872	9°8'5652	9°9'9814	8°6'0289
13	9°8'2059	1°12'058	9°8'1838	9°9'9778	8°6'4068	43	9°8'5974	1°16'009	9°8'5789	9°9'9815	8°6'0153
14	9°8'2184	1°12'184	9°8'1964	9°9'9780	8°6'3943	44	9°8'6111	1°16'147	9°8'5927	9°9'9816	8°6'0016
15	9°8'2309	1°12'310	9°8'2090	9°9'9781	8°6'3818	45	9°8'6248	1°16'286	9°8'6066	9°9'9817	8°5'5879
16	9°8'2435	1°12'437	9°8'2217	9°9'9782	8°6'3692	46	9°8'6386	1°16'424	9°8'6204	9°9'9819	8°5'5741
17	9°8'2561	1°12'565	9°8'2345	9°9'9783	8°6'3566	47	9°8'6523	1°16'564	9°8'6344	9°9'9820	8°5'5603
18	9°8'2687	1°12'692	9°8'2472	9°9'9785	8°6'3440	48	9°8'6663	1°16'703	9°8'6483	9°9'9821	8°5'5464
19	9°8'2814	1°12'820	9°8'2600	9°9'9786	8°6'3313	49	9°8'6802	1°16'844	9°8'6624	9°9'9822	8°5'5325
20	9°8'2941	1°12'949	9°8'2729	9°9'9787	8°6'3186	50	9°8'6941	1°16'984	9°8'6764	9°9'9823	8°5'5186
21	9°8'3069	1°13'077	9°8'2857	9°9'9788	8°6'3058	51	9°8'7081	1°17'125	9°8'6905	9°9'9824	8°5'5046
22	9°8'3197	1°13'206	9°8'2986	9°9'9790	8°6'2930	52	9°8'7221	1°17'267	9°8'7047	9°9'9825	8°5'5806
23	9°8'3325	1°13'336	9°8'3116	9°9'9791	8°6'2802	53	9°8'7362	1°17'409	9°8'7189	9°9'9827	8°5'5765
24	9°8'3454	1°13'466	9°8'3246	9°9'9792	8°6'2673	54	9°8'7504	1°17'551	9°8'7331	9°9'9828	8°5'5623
25	9°8'3583	1°13'596	9°8'3376	9°9'9793	8°6'2544	55	9°8'7645	1°17'694	9°8'7474	9°9'9829	8°5'5482
26	9°8'3712	1°13'727	9°8'3507	9°9'9795	8°6'2415	56	9°8'7788	1°17'838	9°8'7618	9°9'9830	8°5'5339
27	9°8'3842	1°13'858	9°8'3638	9°9'9796	8°6'2285	57	9°8'7930	1°17'981	9°8'7761	9°9'9831	8°5'5197
28	9°8'3972	1°13'989	9°8'3769	9°9'9797	8°6'2155	58	9°8'8074	1°18'126	9°8'7906	9°9'9832	8°5'5053
29	9°8'4103	1°14'121	9°8'3901	9°9'9798	8°6'2024	59	9°8'8217	1°18'271	9°8'8051	9°9'9833	8°5'57910
30	9°8'4234	1°14'253	9°8'4033	9°9'9800	8°6'1893	60	9°8'8361	1°18'416	9°8'8196	9°9'9834	8°5'7766
	a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'

Declination 84°.

Diff. 0.00122.

Diff. 0.00133.

1	2	11	22	21	43	1	2	11	24	21	47
2	4	12	24	22	45	2	4	12	27	22	49
3	6	13	26	23	47	3	7	13	29	23	51
4	8	14	28	24	49	4	9	14	31	24	53
5	10	15	30	25	51	5	11	15	33	25	55
6	12	16	33	26	53	6	13	16	35	26	58
7	14	17	35	27	55	7	15	17	38	27	60
8	16	18	37	28	57	8	18	18	40	28	62
9	18	19	39	29	59	9	20	19	42	29	64
10	20	20	41	30	61	10	22	20	44	30	67

N.P.D. Tables for Star Constants, 1880.

5° to 4°						175° to 176°					
κ=0.4875.						c'=1.30220.					
d'=0.00000.											
	a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'
0	9.88361	1.18416	9.88196	9.99834	8.57766	30	9.92927	1.23013	9.92793	9.99866	8.53200
1	9.88506	1.18562	9.88342	9.99836	8.57621	31	9.93087	1.23174	9.92954	9.99867	8.53040
2	9.88651	1.18708	9.88488	9.99837	8.57476	32	9.93249	1.23337	9.93117	9.99868	8.52878
3	9.88797	1.18855	9.88635	9.99838	8.57330	33	9.93411	1.23500	9.93280	9.99869	8.52716
4	9.88943	1.19002	9.88782	9.99839	8.57184	34	9.93574	1.23663	9.93443	9.99870	8.52553
5	9.89090	1.19149	9.88929	9.99840	8.57037	35	9.93737	1.23828	9.93608	9.99871	8.52390
6	9.89237	1.19298	9.89078	9.99841	8.56890	36	9.93901	1.23993	9.93773	9.99872	8.52226
7	9.89384	1.19446	9.89226	9.99842	8.56743	37	9.94065	1.24158	9.93938	9.99873	8.52062
8	9.89532	1.19595	9.89375	9.99843	8.56595	38	9.94230	1.24324	9.94104	9.99874	8.51897
9	9.89681	1.19745	9.89525	9.99844	8.56446	39	9.94396	1.24491	9.94271	9.99875	8.51731
10	9.89830	1.19895	9.89675	9.99845	8.56297	40	9.94562	1.24658	9.94438	9.99876	8.51565
11	9.89980	1.20046	9.89826	9.99846	8.56147	41	9.94730	1.24826	9.94606	9.99877	8.51397
12	9.90130	1.20197	9.89977	9.99847	8.55997	42	9.94897	1.24995	9.94775	9.99878	8.51230
13	9.90281	1.20349	9.90129	9.99848	8.55846	43	9.95066	1.25164	9.94944	9.99879	8.51061
14	9.90432	1.20501	9.90281	9.99850	8.55695	44	9.95235	1.25334	9.95114	9.99879	8.50892
15	9.90584	1.20654	9.90434	9.99851	8.55543	45	9.95404	1.25505	9.95285	9.99880	8.50723
16	9.90736	1.20808	9.90588	9.99852	8.55391	46	9.95575	1.25676	9.95456	9.99881	8.50552
17	9.90889	1.20961	9.90741	9.99853	8.55238	47	9.95746	1.25848	9.95628	9.99882	8.50381
18	9.91042	1.21116	9.90896	9.99854	8.55085	48	9.95917	1.26020	9.95800	9.99883	8.50210
19	9.91196	1.21271	9.91051	9.99855	8.54931	49	9.96090	1.26194	9.95974	9.99884	8.50037
20	9.91351	1.21426	9.91206	9.99856	8.54776	50	9.96263	1.26368	9.96148	9.99885	8.49864
21	9.91506	1.21582	9.91362	9.99857	8.54621	51	9.96436	1.26542	9.96322	9.99886	8.49691
22	9.91661	1.21739	9.91519	9.99858	8.54466	52	9.96611	1.26718	9.96498	9.99887	8.49516
23	9.91817	1.21896	9.91676	9.99859	8.54310	53	9.96786	1.26894	9.96674	9.99888	8.49341
24	9.91974	1.22054	9.91834	9.99860	8.54153	54	9.96962	1.27071	9.96851	9.99889	8.49165
25	9.92131	1.22212	9.91992	9.99861	8.53996	55	9.97139	1.27248	9.97028	9.99890	8.48988
26	9.92289	1.22371	9.92151	9.99862	8.53838	56	9.97316	1.27426	9.97206	9.99891	8.48811
27	9.92448	1.22531	9.92311	9.99863	8.53679	57	9.97494	1.27605	9.97385	9.99891	8.48633
28	9.92607	1.22691	9.92471	9.99864	8.53520	58	9.97673	1.27785	9.97565	9.99892	8.48454
29	9.92766	1.22851	9.92631	9.99865	8.53361	59	9.97852	1.27965	9.97745	9.99893	8.48275
30	9.92927	1.23013	9.92793	9.99866	8.53200	60	9.98033	1.28147	9.97927	9.99894	8.48094
	a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'

Declination 85°.

Diff. 0.00146.

Diff. 0.00161.

1	2	11	27	21	51	1	3	11	30	21	56
2	5	12	29	22	54	2	5	12	32	22	59
3	7	13	32	23	56	3	8	13	35	23	62
4	10	14	34	24	58	4	11	14	38	24	64
5	12	15	36	25	61	5	13	15	40	25	67
6	15	16	39	26	63	6	16	16	43	26	70
7	17	17	41	27	66	7	19	17	46	27	72
8	19	18	44	28	68	8	21	18	48	28	75
9	22	19	46	29	71	9	24	19	51	29	78
10	24	20	49	30	73	10	27	20	54	30	81

N.P.D. Tables for Star Constants, 1880.

4° to 3°						c'=1'30220.						d'=0'00000. 176° to 177°					
	a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'
0	9'98033	1'28147	9'97927	9'99894	8'48094	30	0'03823	1'33962	0'03742	9'99919	8'42304						
1	9'98214	1'28329	9'98109	9'99895	8'47913	31	0'04031	1'34170	0'03950	9'99920	8'42096						
2	9'98395	1'28511	9'98291	9'99896	8'47732	32	0'04239	1'34379	0'04159	9'99920	8'41888						
3	9'98578	1'28695	9'98475	9'99897	8'47549	33	0'04448	1'34589	0'04369	9'99921	8'41679						
4	9'98761	1'28879	9'98659	9'99898	8'47366	34	0'04658	1'34800	0'04580	9'99922	8'41469						
5	9'98945	1'29064	9'98844	9'99898	8'47182	35	0'04869	1'35011	0'04791	9'99923	8'41258						
6	9'99130	1'29250	9'99030	9'99899	8'46997	36	0'05081	1'35224	0'05004	9'99923	8'41046						
7	9'99316	1'29436	9'99216	9'99900	8'46811	37	0'05294	1'35438	0'05218	9'99924	8'40833						
8	9'99503	1'29624	9'99404	9'99901	8'46624	38	0'05508	1'35653	0'05433	9'99925	8'40619						
9	9'99690	1'29812	9'99592	9'99902	8'46437	39	0'05724	1'35869	0'05649	9'99926	8'40403						
10	9'99878	1'30001	9'99781	9'99903	8'46249	40	0'05940	1'36086	0'05866	9'99926	8'40187						
11	0'00067	1'30191	9'99971	9'99904	8'46060	41	0'06157	1'36305	0'06085	9'99927	8'39970						
12	0'00257	1'30381	0'00161	9'99904	8'45870	42	0'06376	1'36524	0'06304	9'99928	8'39751						
13	0'00447	1'30573	0'00353	9'99905	8'45680	43	0'06596	1'36744	0'06524	9'99929	8'39531						
14	0'00639	1'30765	0'00545	9'99906	8'45488	44	0'06816	1'36966	0'06746	9'99929	8'39311						
15	0'00831	1'30958	0'00738	9'99907	8'45296	45	0'07038	1'37188	0'06968	9'99930	8'39089						
16	0'01024	1'31152	0'00932	9'99908	8'45103	46	0'07261	1'37412	0'07192	9'99931	8'38866						
17	0'01218	1'31347	0'01127	9'99909	8'44909	47	0'07485	1'37637	0'07417	9'99932	8'38642						
18	0'01413	1'31543	0'01323	9'99909	8'44714	48	0'07711	1'37863	0'07643	9'99932	8'38416						
19	0'01609	1'31739	0'01519	9'99910	8'44518	49	0'07937	1'38090	0'07870	9'99933	8'38190						
20	0'01806	1'31937	0'01717	9'99911	8'44321	50	0'08165	1'38319	0'08099	9'99934	8'37962						
21	0'02003	1'32135	0'01915	9'99912	8'44124	51	0'08394	1'38548	0'08328	9'99934	8'37733						
22	0'02202	1'32334	0'02114	9'99913	8'43925	52	0'08624	1'38779	0'08559	9'99935	8'37503						
23	0'02401	1'32535	0'02315	9'99913	8'43726	53	0'08856	1'39011	0'08791	9'99936	8'37271						
24	0'02602	1'32736	0'02516	9'99914	8'43525	54	0'09088	1'39245	0'09025	9'99936	8'37039						
25	0'02803	1'32938	0'02718	9'99915	8'43324	55	0'09322	1'39479	0'09259	9'99937	8'36805						
26	0'03005	1'33141	0'02921	9'99916	8'43122	56	0'09557	1'39715	0'09495	9'99938	8'36570						
27	0'03208	1'33345	0'03125	9'99917	8'42919	57	0'09794	1'39952	0'09732	9'99938	8'36333						
28	0'03412	1'33550	0'03330	9'99917	8'42715	58	0'10032	1'40191	0'09971	9'99939	8'36095						
29	0'03617	1'33756	0'03536	9'99918	8'42510	59	0'10271	1'40430	0'10210	9'99940	8'35856						
30	0'03823	1'33962	0'03742	9'99919	8'42304	60	0'10511	1'40671	0'10451	9'99940	8'35616						
	a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'

Declination 86°.

Diff. 0'00182.

Diff. 0'00208.

1	3	11	33	21	64	1	3	11	38	21	73
2	6	12	36	22	67	2	7	12	42	22	76
3	9	13	39	23	70	3	10	13	45	23	80
4	12	14	42	24	73	4	14	14	49	24	83
5	15	15	45	25	76	5	17	15	52	25	87
6	18	16	49	26	79	6	21	16	55	26	90
7	21	17	52	27	82	7	24	17	59	27	94
8	24	18	55	28	85	8	28	18	62	28	97
9	27	19	58	29	88	9	31	19	66	29	101
10	30	20	61	30	91	10	35	20	69	30	104

N.P.D. Tables for Star Constants, 1880.

3° to 2°						c' = 1.30220.						d' = 0.00000. 177° to 178°					
	a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'
0	0.10511	1.40671	0.10451	9.99940	8.35616	30	0.18423	1.48602	0.18382	9.99959	8.27704						
1	0.10753	1.40914	0.10694	9.99941	8.35374	31	0.18713	1.48893	0.18673	9.99959	8.27414						
2	0.10996	1.41158	0.10938	9.99942	8.35131	32	0.19006	1.49185	0.18965	9.99960	8.27121						
3	0.11240	1.41403	0.11183	9.99942	8.34887	33	0.19300	1.49480	0.19260	9.99960	8.26827						
4	0.11486	1.41649	0.11429	9.99943	8.34641	34	0.19596	1.49777	0.19557	9.99961	8.26531						
5	0.11733	1.41897	0.11677	9.99944	8.34394	35	0.19894	1.50076	0.19856	9.99961	8.26233						
6	0.11982	1.42146	0.11926	9.99944	8.34145	36	0.20195	1.50377	0.20157	9.99962	8.25932						
7	0.12232	1.42397	0.12177	9.99945	8.33895	37	0.20497	1.50680	0.20460	9.99962	8.25630						
8	0.12484	1.42649	0.12429	9.99946	8.33643	38	0.20802	1.50985	0.20765	9.99963	8.25325						
9	0.12737	1.42903	0.12683	9.99946	8.33390	39	0.21109	1.51292	0.21072	9.99963	8.25018						
10	0.12991	1.43158	0.12938	9.99947	8.33136	40	0.21418	1.51602	0.21382	9.99964	8.24709						
11	0.13247	1.43415	0.13195	9.99948	8.32880	41	0.21729	1.51913	0.21693	9.99964	8.24398						
12	0.13505	1.43673	0.13453	9.99948	8.32622	42	0.22042	1.52227	0.22007	9.99965	8.24085						
13	0.13764	1.43933	0.13713	9.99949	8.32363	43	0.22358	1.52543	0.22323	9.99966	8.23769						
14	0.14024	1.44194	0.13974	9.99949	8.32103	44	0.22676	1.52862	0.22642	9.99966	8.23451						
15	0.14287	1.44457	0.14237	9.99950	8.31840	45	0.22996	1.53183	0.22963	9.99967	8.23131						
16	0.14550	1.44721	0.14501	9.99951	8.31577	46	0.23319	1.53506	0.23286	9.99967	8.22808						
17	0.14816	1.44987	0.14767	9.99951	8.31311	47	0.23644	1.53832	0.23612	9.99967	8.22483						
18	0.15083	1.45255	0.15035	9.99952	8.31044	48	0.23972	1.54160	0.23940	9.99968	8.22155						
19	0.15352	1.45524	0.15304	9.99952	8.30775	49	0.24302	1.54490	0.24270	9.99968	8.21825						
20	0.15622	1.45795	0.15575	9.99953	8.30505	50	0.24634	1.54823	0.24603	9.99969	8.21493						
21	0.15894	1.46068	0.15848	9.99954	8.30233	51	0.24970	1.55159	0.24939	9.99969	8.21157						
22	0.16168	1.46342	0.16122	9.99954	8.29959	52	0.25307	1.55497	0.25277	9.99970	8.20820						
23	0.16444	1.46618	0.16398	9.99955	8.29683	53	0.25648	1.55838	0.25618	9.99970	8.20479						
24	0.16721	1.46896	0.16676	9.99955	8.29406	54	0.25991	1.56182	0.25962	9.99971	8.20136						
25	0.17000	1.47176	0.16956	9.99956	8.29127	55	0.26337	1.56528	0.26308	9.99971	8.19790						
26	0.17281	1.47457	0.17237	9.99956	8.28846	56	0.26686	1.56877	0.26657	9.99972	8.19441						
27	0.17564	1.47741	0.17521	9.99957	8.28563	57	0.27037	1.57229	0.27009	9.99972	8.19090						
28	0.17848	1.48026	0.17806	9.99958	8.28279	58	0.27392	1.57584	0.27364	9.99973	8.18735						
29	0.18135	1.48313	0.18093	9.99958	8.27992	59	0.27749	1.57942	0.27722	9.99973	8.18378						
30	0.18423	1.48602	0.18382	9.99959	8.27704	60	0.28109	1.58303	0.28083	9.99974	8.18018						
	a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'		a=b	c	d	a'=b'	sa'

Declination 87°.

Diff. 0.00243.

Diff. 0.00291.

1	4	11	45	21	85	1	5	11	53	21	102
2	8	12	49	22	89	2	10	12	58	22	107
3	12	13	53	23	93	3	15	13	63	23	112
4	16	14	57	24	97	4	20	14	68	24	116
5	20	15	61	25	101	5	24	15	73	25	121
6	24	16	65	26	105	6	29	16	78	26	126
7	28	17	69	27	109	7	34	17	82	27	131
8	32	18	73	28	113	8	39	18	87	28	136
9	36	19	77	29	117	9	44	19	92	29	141
10	41	20	81	30	122	10	49	20	97	30	146

